



California Wind Energy Association

California Energy Commission

DOCKETED
09-RENEW EO-1

TN # 66720

AUG 16 2012

August 16, 2012

California Energy Commission
Dockets Office, MS-4
Docket No. 09-RENEW EO-01
1516 Ninth Street
Sacramento, CA 95814-5512
Via email to: docket@energy.state.ca.us

Re: Comments on the DRECP July 2012 Stakeholder Meeting and Materials

To Whom It May Concern:

This letter presents the comments of the California Wind Energy Association (“CalWEA”) on the Desert Renewable Energy Conservation Plan (“DRECP” or “Plan”) Alternatives and associated materials presented by the state and federal agencies comprising the Renewable Energy Action Team (“REAT Agency Team”) during the July 25-26, 2012, DRECP Stakeholders Meeting.

The original impetus for the Plan was a good one – namely to find a balance between conserving desert ecosystems and fostering prudent development areas, all within a vast planning area. This concept was an ideal one in that it would provide a framework and guidance for both the conservation and development communities to plan their own efforts for the next four decades. Unfortunately, as the process has unfolded, the Plan has instead lost its original intended balance and leaves neither side with any sense of certainty. The Plan lacks an explanation of the biological goals and objectives of its restricted areas. On the flip side, none of the five Alternatives properly balance the desire for reserve areas with the need to preserve California’s potential for renewable energy development to support the state’s 2020 Renewables Portfolio Standard (“RPS”) goals and its policy of transitioning away from the fossil fuels causing climate change under AB 32. Everyone is therefore left wondering what will be gained and what will be lost if and when this Plan is finalized.

CalWEA has been at the table from the beginning, as we have always believed that all stakeholders could work productively towards a common plan. We have appreciated the opportunity to provide specific and focused comments along the way for several years now. With concrete proposals presented by the REAT Agency Team for the first time just weeks ago, however, we now feel the process is being rushed to an untimely completion.

CalWEA therefore joins many other stakeholders in calling for more time to evaluate and reconsider the Alternatives presented before a preferred alternative is selected and evaluated in the EIR/EIS process. If more time is not available, the Plan needs to accommodate a reasonable amount of flexibility, both for conservation and development purposes. This will allow for continued exploration of the appropriate siting of facilities and reserves for years to come. The DRECP's objectives are too important to California's economy and leadership position on the environment for high-level mapping to be misconstrued as specific micro-siting definition.

CalWEA specifically requests a continuation of the stakeholder process, which requires more transparency and dialogue to understand the maps that have been presented in July. These maps hold little meaning by themselves without accompanying explanatory text. For example, references have been made to "rule sets" that have apparently not been drafted, let alone shared with stakeholders and the public. A set of transparent working sessions on specific topics will help ensure stakeholders' understanding of the assumptions feeding into the Plan as well as help ensure decision-makers that the REAT Agency Team has considered specific relevant information.

Our specific comments follow.

I. SUMMARY

The REAT Agency Team should reconsider the Alternatives described in the "Overview of DRECP Alternatives, Briefing Materials," dated July 25, 2012 ("Briefing Materials") and develop modifications that properly address the dual DRECP objectives of conserving desert ecosystems and promoting renewable energy development to achieve the California's 2050 climate change goals, and take into account many issues specific to wind energy that CalWEA has repeatedly raised. If there is insufficient time to develop wholly new alternatives, then considerable flexibility must be built into the plan. These are the specific areas in which the Alternatives fall short:

- The alternatives plan only for 2040 renewable energy needs and fail to account for the *doubling* of renewable energy that will be required between 2040 and 2050. The plans presented could well preclude the additional renewable energy development that may be needed. No assessment has been made of potential land availability in the 2040-2050 timeframe and the associated effects on the renewable energy market and the cost of achieving AB 32 goals. The points below become far more severe in this context.
- The alternatives do not preserve sufficient access to California's best wind energy resources to meet even the very limited amount of wind development purportedly planned for:
 - All of the Alternatives plan for far more geothermal and solar generation than wind capacity – Alternative 3 contains 23 times as much solar capacity as wind. Less than 1,000 MW of wind capacity is planned for under three of the Alternatives.

- These planning figures are contrary to recent experience. Since 2002, new wind projects have accounted for over 80% of the new renewable energy capacity built to meet the RPS, through 2011. In 2011 and 2012, over 2,000 MW of wind capacity has or will be installed in California, mostly in DRECP counties.
- The DFAs in the alternative most favorable to wind (Alternative 5) capture just 16% of the DRECP area's best available wind resources, and are likely to support only a fraction of the 6,600 MW of wind capacity assumed. (An unrealistic 63% of the high-quality wind areas would need to prove developable, whereas less than 10% is realistic.)
- The REAT Agency Team has not provided any assurance that areas outside of the DFAs will be available for development, or what criteria projects proposed in those areas will have to meet.
- The Alternatives do not meet the grid and market objectives discussed by electricity grid, utility, renewable energy and environmental experts.
 - Panelists at a DRECP Energy Panel Roundtable discussed the importance of: not constraining development areas to such a degree that "painfully high" renewable energy costs would result; the public's limited willingness to pay for the renewable energy required to meet AB 32 goals, and the multiple possible renewable energy pathways to achieving those goals, which suggests the importance of a developing a flexible Plan.

Further, the REAT Agency Team's Alternatives were not designed around clear biological goals and objectives, without which biological reserves and DFAs cannot be coherently delineated, nor can the U.S. Fish & Wildlife Service ("USFWS") and the California Department of Fish & Game ("CDFG") ensure that the DRECP will meet state and federal legal requirements for Habitat Conservation Plans ("HCPs") and Natural Community Conservation Plans ("NCCPs") that will be the foundation of the DRECP.

Finally, the Methodology supporting the Alternatives is vague and fails to evaluate the specific impacts of wind energy projects:

- The Briefing Materials assert conflicts between wind energy development and various terrestrial species and wildlife connectivity areas while admitting that an evaluation of wind compatibility has not been done.
- The REAT Agency Team never accounted for the limited ground-disturbance footprint of wind energy projects, apparently presuming impact over the entire lease area of a wind project, rather than the 2-5% of that area that is actually disturbed.

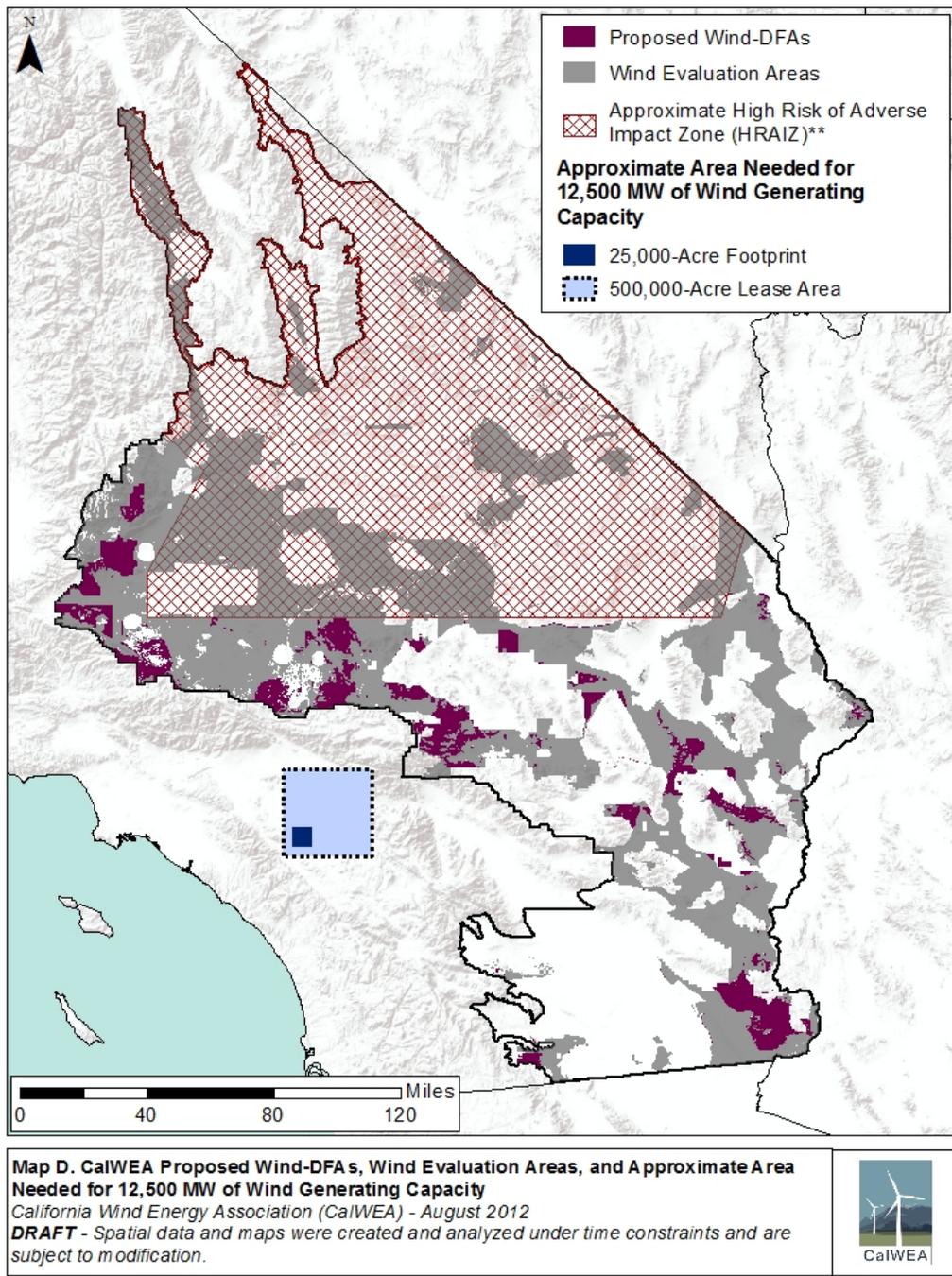
- The DRECP's lead independent science advisor himself stated the "obvious" differences with wind developments, noting potential compatibility with linkage areas and "a lot of" biological resources.
- A rigorous study has documented the compatibility of wind energy development with the desert tortoise, a flagship species in the DRECP planning efforts.
- A proposed 10-mile exclusion area around potentially numerous, unidentified eagle nests in the DRECP area is over-broad, arbitrary and not supported by scientific evidence. It is based on a sampling method that is biased toward wind development areas, assumptions about eagle movements that are not supported by data, and a failure to take into account other uses of land within the 10-mile buffer area that will bear on the success of the "reserve" area.

A proper wind alternative is lacking and must be developed and analyzed. CalWEA offers the following proposal, which is a clarification and refinement of the proposal that CalWEA submitted in April 2012:

- Up to 12,500 MW of wind capacity in 2040 should be analyzed to occur both in a revised set of DFAs (as modifications to Alternative 2, Alternative 5 or other Wind DFAs), and, *as importantly*, in defined "Wind Evaluation Areas." (CalWEA's Modified DFA is slightly less acreage than the REAT Agency Team's Alternative 5 Wind DFA, but captures 44% of high priority wind resources in the DRECP area vs. 16% captured in the REAT Agency Team alternative.) The analysis should be based on an appropriate ground disturbance "footprint."
- Rather than exclude high-value wind resources in areas hosting sensitive species and with potential land-use conflicts, the Alternative should presume that these areas will be further studied to determine compatibility with wind developments before such developments are authorized.
- As avian impacts to special-status species are poorly understood, they should be addressed on a separate, parallel track before permanent lines on maps are drawn. The analysis should simply assume that wind developments will meet any requirements under the federal Bald and Golden Eagle Protection Act ("BGEPA") and state and federal endangered species laws while needed research is conducted.
- All wind developments would be subject to site-specific eagle studies and permitting under a limited, interim permitting process under state and federal endangered species laws with associated BGEPA clearance. A long-term, programmatic eagle permitting process would be established based on the results of a 3- to 4- year defined research effort with defined funding sources. Therefore, the DRECP analysis should assume that wind developments will meet any requirements under BGEPA and endangered species laws.

- Similarly, all wind developments in a defined California condor study area would be subject to site-specific studies and any needed, non-lethal take permits, pending research following DRECP issuance when take coverage may become available.

Map D, below, depicts this proposal geographically.



II. THE FIVE ALTERNATIVES ARE FUNDAMENTALLY FLAWED

A. The Five Alternatives Fail To Properly Balance the Dual DRECP Objectives of Conserving Desert Ecosystems and Promoting Renewable Energy Development to Achieve AB 32 Goals

1. *The alternatives do not account for the renewable energy that will be needed to meet California's 2050 greenhouse gas reduction goals*

As Energy Commissioner Karen Douglas stated at the July 13, 2012, Energy Panel Discussion for the DRECP, "at the very high level, the purpose of the DRECP is to identify sufficient development areas to meet the State's long term climate goals ... in a way that is consistent with long term preservation of species in the desert region." Douglas went on to state:

"[W]e keyed the calculator to keep ... California on its greenhouse gas trajectory of 80 percent below 1990 levels in 2050. Through the stakeholder work, we ultimately settled on 2040 as the target date for the planning, but I want to note and emphasize for people here that the renewable energy -- the need for incremental renewable energy that we calculated literally doubled between 2040 and 2050 ... so that we know that a 2040 number ... is probably low in context of California's long term goals, and that's one of the understandings that needs to inform our work."¹

Despite the need for twice the amount of renewable energy that the Alternatives plan for, the Briefing Materials and associated slide presentation contain no discussion of how the Alternatives presented will affect the need for much larger volumes of renewable energy. (Further, there was little to no discussion at the Stakeholder Committee meetings on the issue of selecting 2040 as the target date for planning.)

While it may be difficult or impossible to predict how much renewable energy will be required in the 2040-2050 timeframe, that uncertainty does not relieve DRECP planners of the responsibility to make the best possible assessment, which would require a wide range of possible outcomes. Changes were made to the "calculator" to satisfy the Sierra Club's concerns; this sets the *low-end of the range for 2040*, but no assessment has been made of the *high-end range for 2050*. Nor has any assessment been made of the draft plans for 2040 regarding the implications of those plans for possible 2050 renewable energy needs.

In particular, it remains unclear under what conditions lands outside of DFAs, including expanded ACEC areas, will be available for development over the long-term, how much renewable energy development can be expected to occur under those conditions, and what the implications of that are under a scenario where 2050 demand for renewable energy is high. No assessment has been made of potential land availability and the associated effects on the renewable energy market and the cost of achieving AB 32 goals. And we have been informed that the agencies will

¹ California Energy Commission, Transcript of the July 13, 2012, Energy Panel Discussion for the DRECP, pp. 21-22 (Docket 09-RENEW EO-01). Available at: http://www.drecp.org/meetings/2012-07-13_workshop/2012-07-13_Transcript.pdf.

not seek to evaluate these demand levels in the DRECP, applicable FLPMA requirements, or the associated CEQA or NEPA review, despite the fact that these demand levels are reasonably foreseeable and applicable law requires them to be evaluated in some meaningful way.

Further, restrictions on the state's and the nation's renewable energy reserves will necessarily result in greater reliance on fossil fuels and nuclear energy, which generally impose far greater environmental impacts on wildlife.² These impacts should also be considered in the environmental analysis of the Plan and the associated environmental review documents. Failure to do so would render the documents fundamentally inadequate.

The points below become far more severe in this larger context.

2. *The alternatives do not preserve sufficient access to California's best wind energy resources*

- a. The planning assumption for wind energy megawatts is far too low, will place wind at a competitive disadvantage, and will constrain the market, leading to higher AB 32 compliance costs

Other than discussing the CEC "calculator" results – which were repeatedly presented by Commissioner Douglas as a tool to inform discussions and not intended to be predictive, the REAT Agency Team never discussed with Stakeholders appropriate planning targets for the renewable energy resources. For example, the Team never responded to or discussed CalWEA's recommendation in its April 17, 2012, comments that the DRECP plan for an amount of *each* renewable technology that is an upper-bound estimate of the reasonably possible. (That is, *each Alternative* should plan for the possibility that any technology – though obviously not all of the technologies, which are competing – could reach its upper-bound estimate.) CalWEA provided many reasons for this: the inability to predict the future; the importance of preserving competition among and between technologies to keep costs as low as possible, thereby preserving society's ability and willingness to pay to achieve the state's greenhouse-gas-reduction goals; and the importance of not prejudging state energy policies. CalWEA also noted that high-end planning figures will not pre-ordain development on that order, and that, under applicable case law, Natural Community Conservation Plans and Habitat Conservation Plans require mitigation to stay ahead of impacts.

Nevertheless, the REAT Agency Team chose to create Alternatives that favor geothermal and solar energy technologies, and did not create any single alternative that provides for meaningful competition among technologies over the long-term horizon of this Plan. All of the Alternatives anticipate far more geothermal and solar generation than wind capacity – Alternative 3 contains 23 times as much solar capacity as wind. (Briefing Materials, Table, p. 19.) Geothermal is held steady at 2,800 MW in all Alternatives, apparently the presumed technical maximum, while

² See, e.g., Newman, J., E. Zillioux, C. Newman, C. Denny, P. Colverson, K. Hill, W. Warren-Hicks, and S. Marynowski. 2009. *Comparison of Reported Effects and Risks to Vertebrate Wildlife from Six Electricity Generation Types in the New York / New England Region*. New York State Energy Research and Development Authority (NYSERDA), 17 Columbia Circle, Albany, New York, 12203.

less than 1,000 MW of wind capacity is planned for under three of the Alternatives. CalWEA provided logic and evidence in its April 2012 comments to support a 25,000 MW high-case equivalent for wind for 2050.³ Consistent with the calculator's forecasted need for a doubling of renewable energy between 2040 and 2050, the 2040 planning figure for wind should be 12,500 MW, as compared to the 6,660-MW figure in Alternative 5.

The REAT Agency Team's planning figures stand in contrast to recent experience. Since 2002, wind capacity in California has more than doubled and has accounted for over 80% of new renewable energy capacity built to meet the RPS, through 2011 (i.e., solar and geothermal technologies supplied less than 20%). Over 900 MW of wind energy projects were installed across California in 2011, over 700 MW of which were built in DRECP counties. In 2012, an additional 1,600 MW of wind capacity will be built, primarily in the DRECP-area counties of Kern, Riverside, and Imperial. The contract failure rates generally assumed for signed power purchase agreements are over 50% for concentrated solar power and geothermal, twice that for wind and solar photovoltaic projects.⁴

And yet the "No Action" alternative, from which the generation capacity in the Alternatives was scaled, is based only on the geographical and technological distribution of projects that are either Approved or Under Review within the DRECP boundary. No assumptions were made about differential failure rates based on project size, location or technology. (Briefing Materials, footnote to table, p. 20.)

³ CalWEA addressed only the renewable energy figures in the calculator, not the many assumptions leading to the overall quantity of renewable energy that may be required. However, any number of the assumptions made in the July 27, 2012, revised calculator – which adopted many of the liberal assumptions proposed by the Sierra Club that minimize the need for renewable energy– may prove wrong.

For example, CEC staff assumed that existing in-state renewables would be generating an amount equal to the total amount of in-state renewable generation in 2010 and assumes that a substantial amount will either still be in operation or be repowered. (DRECP Renewable Energy Acreage Calculator and the 2040 Revised Scenario's Renewable Portfolio, July 27, 2012, p.9) As noted by PG&E's Aaron Johnson at the DRECP Energy Panel, however, some existing resources may be more expensive than new resources. (Energy Panel Transcript, p. 148.) Existing biomass facilities have struggled to compete successfully in recent years; if this situation continues, these project sites will not be repowered. The assumption also does not take into account likely declines in production at the Geysers geothermal facility, where industry experts recently estimated the present generation capacity of 850 MW will decline to about 700 MW over the next two decades." (Subir K. Sanyal and Steven L. Eney, "Fifty Years Of Power Generation At The Geysers Geothermal Field, California – The Lessons Learned Proceedings," Thirty-Sixth Workshop on Geothermal Reservoir Engineering Stanford University, Stanford, California, January 31 - February 2, 2011. Available at <http://pangea.stanford.edu/ERE/pdf/IGStandard/SGW/2011/sanyal3.pdf>.)

Similarly, CEC staff assumed that energy from large hydroelectric facilities would be unchanged from current levels, which does not take into account the reduction in hydroelectric output that could occur by 2040 as a result of climate change which, as the Calculator report itself notes, may reduce output by 25% or more. (See, e.g., Kaveh Madani and Jay R. Lund, "Estimated impacts of climate warming on California's high-elevation hydropower," *Climatic Change* (2010) 102:521–538 (available at: <http://www.springerlink.com/content/877054280270g517/fulltext.pdf>); and CEC Consultant Report, "Potential Changes In Hydropower Production From Global Climate Change In California And The Western United States." Prepared in support of the 2005 Integrated Energy Policy Report Proceeding (Docket # 04-IEPR-01G) June 2005 (CEC-700-2005-010).

⁴ See, e.g., North America Renewable Power Advisory, "IHS Emerging Energy Research (July 28, 2011).

By focusing primarily on solar and geothermal energy generation, where excellent wind energy resources exist, the proposed plan would distort renewable energy market pricing, increase costs to California consumers, provide a less effective resource conservation plan, jeopardize global warming goals, and provide a poor example of land use planning for future generations.

- b. The DFAs in the alternative most favorable to wind (Alternative 5) capture a small fraction of the DRECP area's best wind resources, and that area is likely to support only a fraction of the wind capacity assumed

Fundamentally, the proposed Alternatives fail to treat renewable energy resources as strategic energy resources that California may well need within the 2050 timeframe of the DRECP. Among the renewables, wind energy is obviously disadvantaged in all of the Alternatives, to the point where the objectivity of the analysis must seriously be questioned. CalWEA analyzed Alternatives 1 and 5 and presented its findings to the DRECP Stakeholders Committee on July 26, 2012 (Appendix A). We showed that Alternative 1 -- not even the least favorable of the alternatives -- preserves just 3% of the remaining high-quality wind resource areas that CalWEA clearly identified to the REAT Agency Team, supplying maps and GIS shape file at least two years ago.

CalWEA also demonstrated that Alternative 5 -- *the alternative most favorable to wind energy* -- is itself *entirely impracticable*:

- While the Briefing Materials (p. 17) claim that 57% of "CalWEA wind areas" are captured in the Alternative 5 DFAs, in fact only 16% of the highest-quality wind resource areas that CalWEA clearly identified are captured, once the Department of Defense's proposed High Risk of Adverse Impact Zone ("HRAIZ") area is taken into account.
- To develop the 6,660 MW of wind capacity under Alternative 5 would require 266,420 acres, as shown in the table on page 19, as compared to the 424,097 acres of high-quality wind resource areas in the Alternative 5 area. That is, 63% of the commercial-grade wind resources in the Alternative 5 area would need to prove developable in order to reach the 6,660-MW planning target. This success rate is unrealistic. As CalWEA described in detail in its April 17, 2012, comments, as little as 10% of a land area *that has been identified by a developer as suitable for a wind project* will ultimately prove to be developable. A wind development company provided specific evidence to the REAT agencies to support this.⁵ Most of the Alternative 5 wind area -- about 75% -- is associated with one or more major conflicts, primarily military, and is unlikely to be widely pursued for commercial development.

⁵ See, e.g., Rick Miller, enXco, "Wind Siting Considerations & Project Development" (presentation to the DRECP Stakeholders' Committee). November 2011.

- The REAT Agency Team has not provided any assurance that areas outside of the DFAs will be available for development, or what criteria projects proposed in those areas will have to meet.

3. The alternatives do not meet the grid and market objectives discussed in the Energy Panel Roundtable discussion

On July 13, 2012, Commissioner Douglas convened a roundtable discussion of state energy officials, energy experts and stakeholders to provide more context for the DRECP in terms of infrastructure planning, renewable energy development costs, electricity system costs, and energy markets, given what has been an almost exclusive focus in the DRECP process on wildlife issues. The presentations, associated reports, and panel discussion underscore the importance of keeping wind energy as a robust option in the future mix of renewable technologies, as discussed above, as illustrated by the following quotations and excerpts.

Nancy Ryan, Deputy Executive Director, Public Utilities Commission:

[A]n important dimension of preserving those options over time is ensuring that we also preserve competition within and between areas and recognize that not every space in any of these areas is likely to be developed; and, if it is, we're going to pay a painfully high price to develop them. So I think that the DRECP designations will be valuable for potentially lowering the cost for individual projects that are located there, but we continue to need competition within that area enabled by transmission, and competition between areas to ensure that the potential savings to consumers are actually ultimately realized. (Energy Panel Transcript, p. 132)

Laura Wisland, Senior Energy Analyst, Union of Concerned Scientists:

I just wanted second [Nancy Ryan's] points on maintaining competition and not overly prescribing the system because none of this stuff is going to happen unless there continues to be public support for mitigating climate change and building renewables as a way to mitigate climate change, and I work for an organization that's very concerned about the waning public support for paying for cleaner energy systems, and so anything that we can do to keep the prices down goes way beyond just building projects in California, but actually just maintaining support for the industry and this being part of our fight to lower greenhouse gas emissions. (Energy Panel Transcript, p. 137-138)

Michael Webster, Assistant Director, Power System Planning and Development, Los Angeles Department of Water and Power

[T]he zones can't be exclusionary because, as smart as everyone is in this room, and everyone who is working on renewables, we are going to get it wrong ... 20 years from now. And so we need to make sure that the areas that are identified in the DRECP don't focus all the attention only on those areas, and if you're outside that

area, you're not going to get your project built because I think the entrepreneurial spirit of our developers are much quicker, much more creative, and they need to have the opportunity to find those creative areas that they can continue to build. And that's how we're going to keep competition. It's a guidance document, let's make sure it's not exclusionary so that our developers can't really go out and get that least cost project built. (Energy Panel Transcript, p. 138-139.)

The presentations and associated reports discussed by Maureen Hand, National Renewable Energy Laboratory, and Andrew Mills of the Lawrence Berkeley National Laboratory, also underscore the importance of keeping wind energy as an option in the future mix of renewable technologies:

- NREL's Renewable Electricity Futures Study (2012) analyzed a number of diverse scenarios to allow for an assessment of multiple pathways that depended on "highly uncertain future technological, institutional, and market choices." (p. xxi)
- Increased system flexibility is important to accommodate high penetrations of renewables; there are both supply and demand side options available; and there are a number of combinations of technologies, all of which could result in deep reductions in electric sector greenhouse gas emissions. (Maureen Hand, NREL, Energy Panel Transcript, p. 76-77)
- Wind and solar resources may be uncorrelated or even anti-correlated depending on location; combining their outputs would reduce aggregate variability. (NREL Renewable Electricity Futures Study, p. xxviii-xxix.)
- The value of ancillary services (which can come from solar thermal storage) is small compared to the value of capacity and energy, and can be expected to be lower as renewable penetration increases, due to the availability of those services from unused conventional power plants. (Andrew Mills, LBNL, Energy Panel Transcript, p. 57-58.)

B. The Alternatives Are Not Designed Around Clear Biological Goals and Objectives

Developing clear, specific biological goals and objectives (BGOs) is essential to the success of the DRECP planning process because BGOs form the basis for Plan development. As stated in the 2000 Addendum to the HCP Handbook, "explicit biological goals and objectives clarify the purpose and direction of an HCP's operating conservation program, ... create parameters and benchmarks for developing conservation measures, provide the rationale behind the HCP's terms and conditions, promote an effective monitoring program, and, where appropriate, help determine the focus of an adaptive management strategy." In other words, BGOs are the keystone of an HCP. Despite the lengthy planning process to date and the emphasis placed upon BGO development by the various stakeholders, adequate BGOs have not yet been identified.

Without well-defined BGOs, biological reserves and DFAs cannot be coherently delineated, and neither FWS nor CDFG can ensure that the DRECP will meet state and federal legal

requirements for HCPs and NCCPs. FWS's own HCP policies, as embodied in the 2000 Addendum to the HCP Handbook, require it to identify explicit biological goals and objectives. Further, well-defined BGOs will help CDFG ensure that the plan protects "habitat, natural communities, and species diversity on a landscape or ecosystem level," as required by Fish and Game Code section 2820(3). As a result, the REAT Agency Team must focus on BGO development and refinement before moving forward with the Plan. This is imperative for both the development and the conservation sides of the plan. If the plan cannot demonstrate that foreseeable energy demand can be accommodated and the environmental impacts thereof mitigated through appropriate application of the law and principles of conservation biology, then the plan is indefensible and everyone in this cooperative effort – including the species at stake -- is a loser.

C. The Approach To Eagle Permitting Is Over-Broad, Arbitrary And Not Supported By Scientific Evidence

The WebEx presentation made by the U.S. Fish and Wildlife Service (USFWS) on July 26, 2012, entitled "Permitting Golden Eagle Take in the DRECP," presented concepts never before discussed in the previous three years of DRECP meetings. The presentation did not present or explain the scientific basis for the proposed permitting approach. Perhaps due to the rush to meet artificially-imposed deadlines for this process, the USFWS appears to have ignored the large quantity of best available eagle data, including desert-specific eagle data, that has been collected in the last year.

CalWEA is concerned that the reserve design concept presented by USFWS, which would ban wind turbines within 10 miles of an eagle nest, is not supported by significant evidence of an unacceptable collision risk within that boundary. If it is not, the proposed concept is arbitrary, capricious, over-broad and results in the exclusion of vast areas that may be suitable for wind project development. We understand, as has been stated to us by members of the REAT Agency Team, that the eagle buffer areas for wind are the primary reason for the extremely limited DFAs for wind identified in the five Alternatives. And yet the REAT agencies have been entirely unwilling to share the underlying layers with stakeholders, and, moreover, have terminated all discussions with stakeholders pending release of the draft DRECP and environmental documents. The basis for the agencies' proposed alternatives is entirely opaque. In other words, the agencies have offered no evidence – let alone substantial evidence – to support any of the restrictions envisioned by the proposed alternatives.

Given the obvious lack of data and analysis, and the agencies' prematurely truncated involvement of stakeholders due to self-imposed deadlines, it is essential to develop an approach to eagle permitting for the DRECP that enables an open discussion of the methods of reserve design, the incorporation of available data, and the development of any additional data that is necessary to support a long-term permitting approach. In the interim, site-specific review and analysis should govern the near-term permitting of wind projects, and the only DRECP filter that should apply would be the voluntary interim review standards established by the REAT agencies, which filtering decisions should be supported by substantial evidence in the record in each individual case.

Appendix B contains a list of several dozen fundamental questions that CalWEA has about the USFWS presentation. Some of our specific concerns are outlined here:

- **The sampling method is biased.** The USFWS designed the reserves based on the locations of known nests; however, a significant portion of the known nests have resulted because wind and solar companies have followed the USFWS guidance and conducted eagle surveys out to 10 miles from the project boundaries. This non-random sampling means that the reserves have a higher likelihood to be within areas slated for development (i.e., sites that have proven promising for development based on site-specific analysis, vs. other areas of the DRECP that have not undergone analysis or have proven to be infeasible). If using known nest locations is going to drive reserve locations, the reserve design needs, at a minimum, to include BLM nest data being collected this year and, more properly, additional nest surveys that would provide a complete picture of the Plan area.
- **The exclusion areas and buffer distances presented are not supported by data.** Within the last year, West Virginia University has been collecting telemetry data on golden eagles in the DRECP for the BLM. These data, as well as USFWS telemetry data, should be incorporated into the development of the reserve design. In addition, proposed projects may have information on specific local eagle movements that are inconsistent with the 10-mile-radius buffer concept; however, as presented, it appears that the arbitrary buffers will overrule any actual data collected on local bird behavior.
- **The habitats and use of lands within and around the 10-mile radius has not been anticipated.** The success of the reserve will be based on the anticipated use of the lands within and surrounding the reserve. Based on the presentation, the habitats and the potential for development within and around the buffer areas was not taken into account, thus reducing the probability of the ultimate success of the reserve. To wit, the USFWS presentation stated that solar projects (other than power towers) would be allowed in the 4- to 10-mile radius area around eagle nests; such development would affect the prey base and thus needs to be evaluated in the reserve concept.

D. The Methodology Supporting the Alternatives Is Vague & Fails to Evaluate the Specific Impacts of Wind Energy Projects

There is no indication in the Briefing Materials or other DRECP materials that the Alternatives were informed by an assessment of the specific biological impacts of each of the different renewable technologies or other types of development that may be permitted in the same land areas. CalWEA has repeatedly called for such an assessment from the beginning of this process years ago. Instead, stakeholders were presented just weeks ago with Alternatives supported only by vague and broad assertions of impacts.

Specifically, in the descriptions for Alternatives 3, 4 and 5, the REAT Agency Team asserts “very high conflicts” for “conservation of large, unfragmented contiguous habitat blocks for known populations of covered species” and for “wildlife and habitat connectivity.” (Briefing Materials, p. 15-17.) Similarly, Table 5.2 simply lists the species present in specific areas to justify the

exclusion of the best wind resource areas from Development Focus Areas. (Briefing Materials, p. 74-76.) No references or analysis are provided. Indeed, a footnote to Table 5.2 itself states that “potential biological conflicts” “represent a preliminary summary of potential biological and non-biological conflicts” and “does not represent an exhaustive analysis of conflicts” (Briefing Materials, 3rd footnote, p. 76) -- and yet the conflicts were apparently presumed in the development of the DFAs.

The failure to account for the limited ground-disturbance footprint of wind energy projects is seen in the Mitigation Contribution Summary Tables (Briefing Materials, p. 60-62), where the estimated acreages listed for “development footprint” and associated mitigation contribution appear to assume approximately 40 acres/MW of wind energy development. That is, the analysis appears to assume that the entire *lease area* of a wind development is disturbed, rather than the 2-5% of that area (i.e., less than 2 acres/MW) that is actually impacted by access roads, turbine pads, maintenance facilities, etc. Such an assumption is grossly inaccurate and would place wind energy at a distinct disadvantage as compared to a solar project, which disturbs on the order of 7 acres/MW. When asked at the July 25, 2012, Stakeholder Meeting about what footprint metric was used, the REAT Agency Team was not able to respond.

Had a proper evaluation been done, it is reasonable to expect that wind energy projects would be found to have fewer wildlife and habitat impacts than other types of development, and that such impacts could be sufficiently low to justify wind development in broader areas. In the words of Dr. Wayne Spencer, Chair of the first Independent Science Advisory panel to the DRECP,

“...[O]bviously, the siting is extremely different between the different technologies. And for example, wind development may be one of those things that is compatible either in reserve areas or in buffer areas...They are compatible with a lot of biological resources ...[W]ind turbines might be okay in, for example, linkage areas because they are not cutting off wildlife movement, depending on the specifics of fencing and lighting and all these other things that could influence animal movements...”⁶

Though few studies have directly assessed the habitat fragmentation and species impacts in the specific context of wind energy development, a study of the desert tortoise (*Gopherus agassizii*, a flagship species in the DRECP planning efforts), showed few differences in demographic and growth parameters between a population at a Palm Springs, California, wind facility and populations living in less disturbed areas.⁷

The Alternatives fail to account for biological impacts in the context of wind energy development, and the fact that habitat fragmentation and habitat loss concerns are species- and site-specific and can be avoided, minimized, and mitigated through appropriate siting techniques. A thorough evaluation of wind energy’s compatibility with desert species is needed before limiting wind development to the areas identified in the Alternatives.

⁶ Dr. Wayne Spencer, DRECP Stakeholder Committee Meeting, August 2010.

⁷ Lovich, Jeffrey E. et al, 2011. “Effects Of Wind Energy Production On Growth, Demography, And Survivorship of a Desert Tortoise (*Gopherus Agassizii*) Population in Southern California With Comparisons To Natural Populations.” *Herpetological Conservation and Biology* 6(2):161-174.

E. A Proper Wind Alternative Is Lacking and Must Be Developed and Analyzed

For all of the reasons articulated above, none of the five alternatives appropriately evaluates a scenario that preserves the state's best wind resources for potential development. CalWEA recommends and strongly encourages that the following alternative be analyzed in the DEIR/S process. This proposal refines and clarifies our previous submissions and reflects subsequent discussions.

a. *The DRECP should analyze development of up to 12,500 MW of wind capacity occurring in both DFAs and within the Wind Evaluation Areas as defined below*

As noted above, CalWEA provided logic and evidence in its April 2012 comments to support a 25,000 MW high-case equivalent for wind for 2050. Consistent with the calculator's forecasted need for a doubling of renewable energy between 2040 and 2050, the 2040 planning figure for wind should be 12,500 MW, as compared to the 6,660-MW figure in Alternative 5.⁸ Similarly, the planning figure for other renewable energy resources should be on the conservative (high) side to ensure that the Plan does not constrain possible energy futures given many market, technology, and policy uncertainties. Unless the DRECP can support a cap on wind resources based on market, technological and grid considerations over the next 40 years, the DRECP DFAs should provide approximately equal DFA areas for each renewable resource type based on expected energy output. Otherwise, the Plan will effectively impose an arbitrary cap on wind energy's share of the market.

The environmental impact and mitigation requirements for this amount of wind development should be judged based on an appropriate ground-disturbance "footprint" for each technology (see section II.D above). As avian impacts to special-status species are poorly understood, they should be addressed on a separate, parallel track. The analysis should simply assume that wind developments will meet any requirements under the federal Bald and Golden Eagle Protection Act, and state and federal endangered species and related laws.

With regard to ACECs and DWMAs, there is currently a lack scientific literature on the compatibility of wind projects and the species of concern in each particular area, although there are reasons to expect compatibility (see section II.D above). Rather than exclude these areas, and other areas hosting the same species, the Alternative should presume that these species and areas will be further studied to determine compatibility before wind development will be authorized, as described below.

The DEIR/S should also address the impact of the 2040 proposal on potential renewable energy needs in 2050.

⁸ 12,500 MW is about twice the amount of wind capacity that will be installed in California by the end of 2012, while 14,000 MW of central solar (the amount planned for in 4 of 5 alternatives) will be on the order of 10 times the amount of 2012 installed central solar capacity in California, or more.

b. *Treatment of eagle and condor in mapping & analysis*

All wind developments, those in DFAs and those that clear the hurdles in the Wind Evaluation Areas, would be subject to site-specific eagle studies and permitting under a limited, interim permitting process under state and federal endangered species laws with associated BGEPA clearance. A long-term, programmatic eagle permitting process would be established based on the results of a 3- to 4- year defined research effort with defined funding sources. Therefore, the DRECP analysis should assume that wind developments will meet any requirements under BGEPA and endangered species laws.

Similarly, all wind developments in a defined California condor study area would be subject to site-specific studies and any needed permits. Take coverage for the condor, limited to harassment or harm arising from hazing or similar activities, or any identified loss of foraging habitat, would be extended upon initial DRECP issuance, subject to adaptive management that responds to information developed for an updated Condor Recovery Plan, which in turn will be supported by the research results of the Condor Wind Working Group and industry initiatives. When completed, no later than five years following DRECP issuance, take coverage may become available.

With the eagle and condor research and permitting occurring on a separate track, the DFAs and Wind Evaluation Areas should be defined without regard to ill-understood risks to these populations.

c. *Proposed Wind Development Focus Areas (Wind-DFAs)*

CalWEA's proposed Wind-DFAs include all high-quality (> 6 m/s) wind resource areas (as modeled and mapped by NREL/AWS TruePower or as measured by wind energy development companies) that are presently potentially available for wind development and where major known potential conflicts are not present. These known conflict areas include:

- Areas classified by the Department of Defense (DoD) as high potential conflict areas ("red" zones), including HRAIZ
- Local government land-use zoning restrictions that currently preclude or discourage wind development⁹ (e.g., Kern County's proposed Wind Exclusion Zone,¹⁰ L.A. County's proposed and adopted Significant Ecological Areas, City of Lancaster zones other than Heavy Industrial Zones),
- Existing ACECs and DWMA's (newly proposed additions have not been well supported by scientific data and appear to be based on overly broad and scientifically unsupported "eagle reservoir" areas), and

⁹ Any layers based on current proposals should be updated based on adopted policy.

¹⁰ While Kern County's proposed Wind Exclusion Zone map covers federal land, that land is not county jurisdictional. As such, for DRECP purposes, the federal land within Kern County should be analyzed for other conflicts. The time constraint for these comments prevented CalWEA from undertaking that analysis.

- Areas proposed to be set aside for conservation, recreation, and other purposes in the proposed “California Desert Protection Act of 2011,” other than the designated off-highway vehicle (OHV) open areas.¹¹

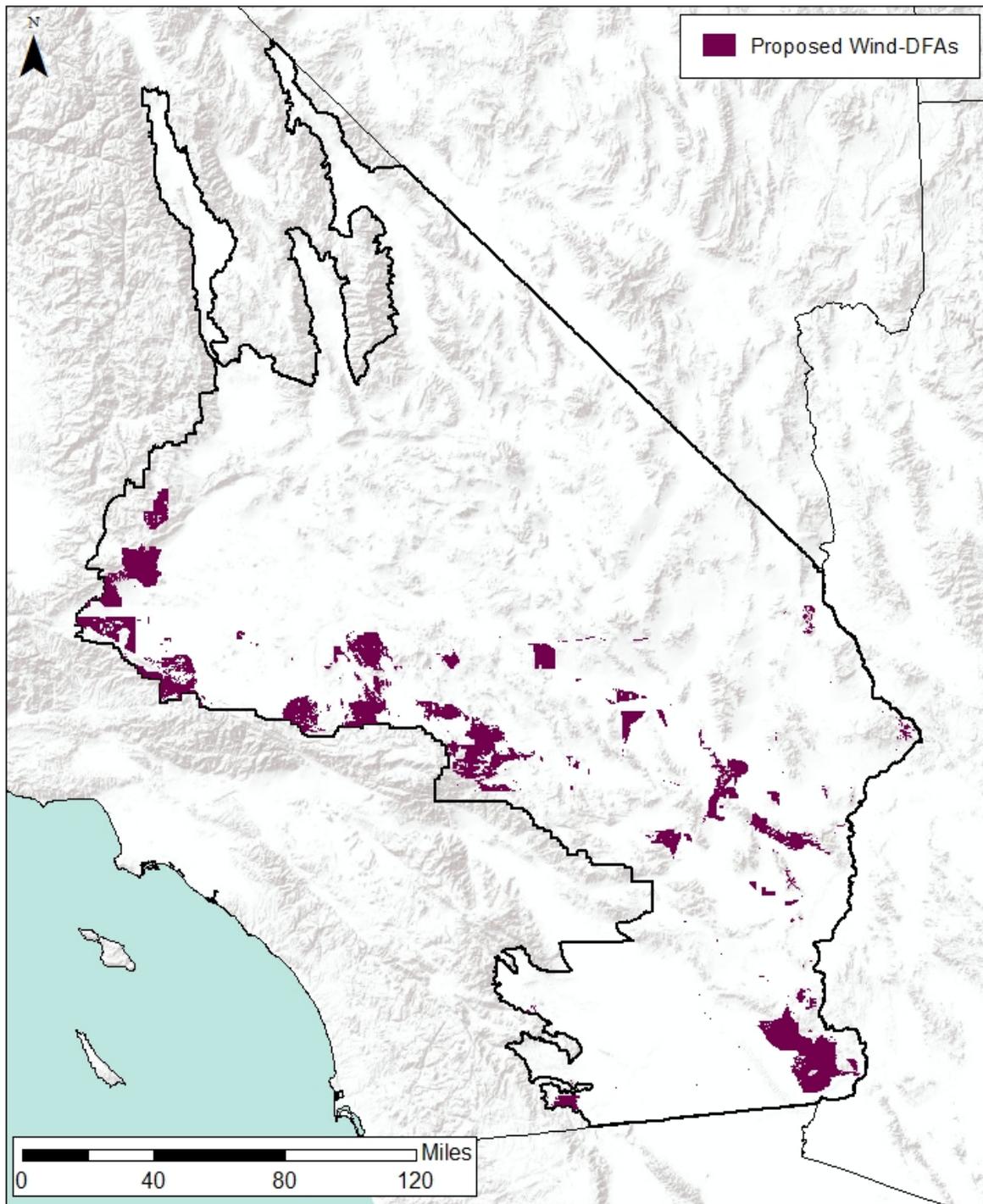
Map A, “Proposed Wind Development Focus Areas,” depicts the areas meeting these criteria, with two important exceptions:

- (1) The map does not screen for military red areas in certain areas where DoD did not provide DRECP Stakeholders with associated shape files.¹² When these shape files become available, additional areas will fall out of the proposed DFAs; and
- (2) The map does not screen out many urban areas where land-use restrictions and proximity to communities will likely prevent wind energy development (e.g., everything between West Lancaster and East Hesperia). These areas should be discussed with local governments and screened out from CalWEA’s proposed DFAs.

Map B shows the overlap between CalWEA’s proposed wind DFAs and Alternative 5 wind DFAs. As indicated, some areas within Alternative 5 do not meet the high-priority resource-area criteria and should be removed. Alternative 5 does not capture all high-quality resource areas that are unencumbered by any of the four known-conflict categories above, which were added. The overall total wind DFA acreage is largely unchanged (the total acreage in the Alternative 5 wind-DFAs was approximately 1.3 million acres; the total acreage in CalWEA’s proposed DFAs is slightly less, approximately 1.2 million acres). 29% of CalWEA’s DFAs is captured by Alternative 5.

¹¹ Per below, as with any proposed wind projects, proposals in OHV open areas would require the consent of recognized representatives of OHV groups.

¹² What is represented on p. 9 of the Briefing Materials as “CalWEA Wind Boundary (Phase 1)” appears to be most (but not all) of the DFA areas that CalWEA proposed in April. What is not included is the equally-important portion of CalWEA’s Phase 1 referred to as the “Neutral” area which included areas requiring further study. We suspect that the REAT Agency Team requested DoD to review for conflicts only the DFA areas and, as a result, DoD provided to the Stakeholders only shape files for these areas. The Briefing Material, as well as the Overview of DRECP Alternatives, should be revised to accurately portray CalWEA’s April proposal, and DoD should be requested to provide conflict maps for this larger area.



Map A. Proposed Wind Development Focus Areas (Wind-DFAs)

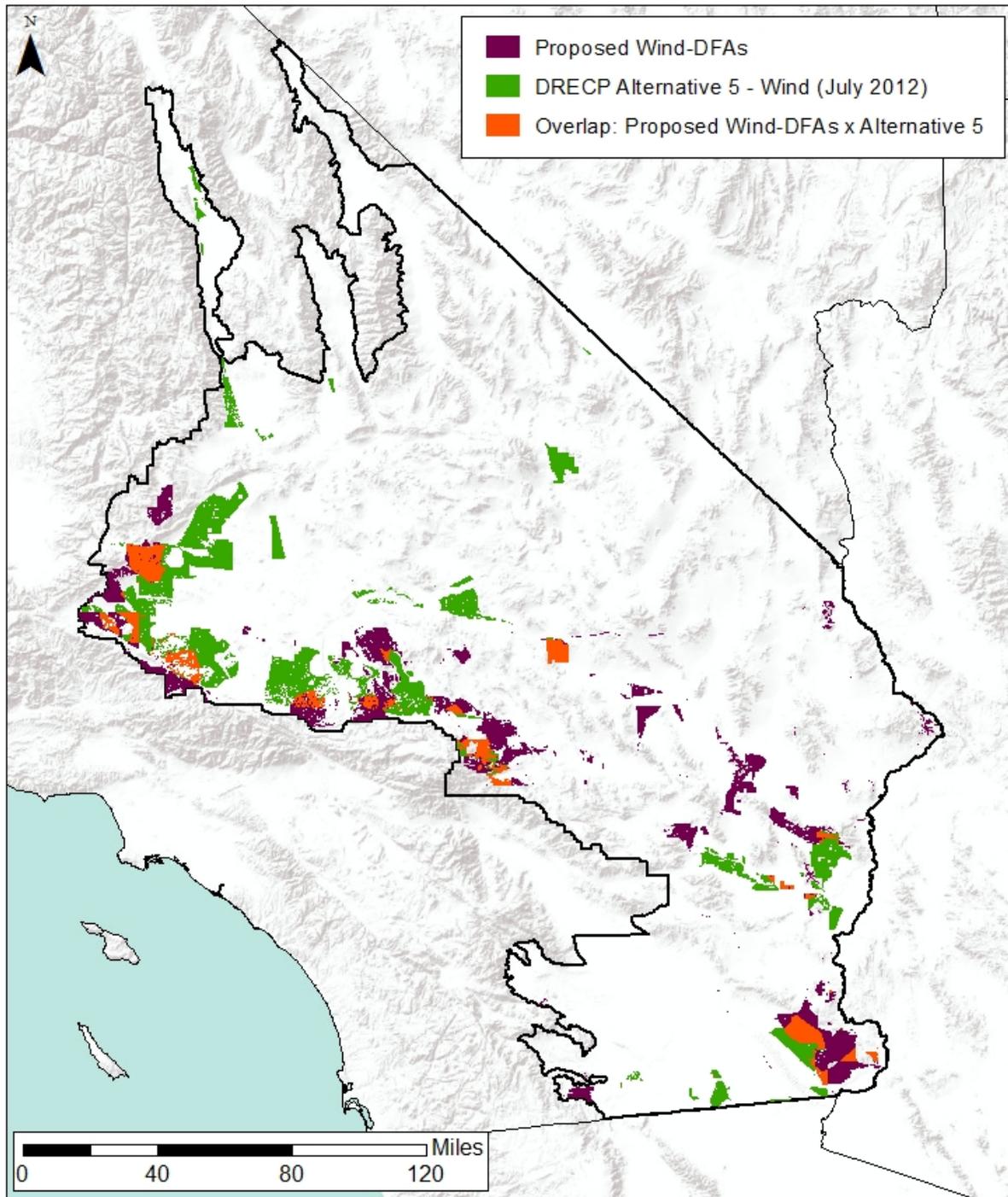
California Wind Energy Association (CalWEA) - August 2012

DRAFT - Spatial data and maps were created and analyzed under time constraints and are subject to modification.



CalWEA

Source(s): DRECP, 2012; CalWEA, 2012; Sapphos Environmental, 2012; USGS/ESRI/TANA/AND, 2012



Map B. Overlap Between Proposed Wind Development Focus Areas (Wind-DFAs) and DRECP Alternative 5

California Wind Energy Association (CalWEA) - August 2012

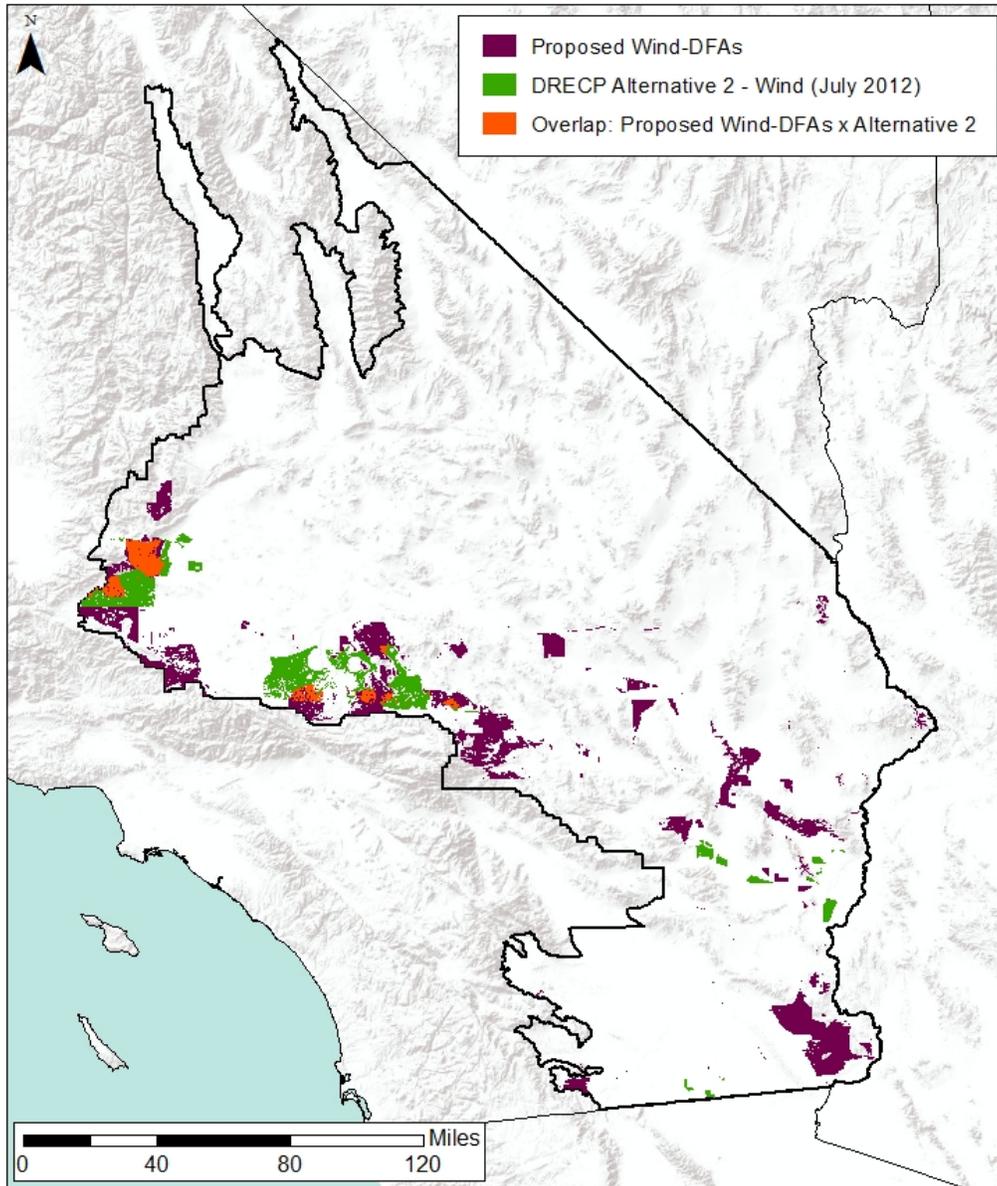
DRAFT - Spatial data and maps were created and analyzed under time constraints and are subject to modification.

Source(s): DRECP, 2012; CalWEA, 2012; Sapphos Environmental, 2012; USGS/ESRI/TANA/AND, 2012



CalWEA

Map C shows, similarly, the overlap between CalWEA’s proposed wind DFAs and the Alternative 2 wind DFAs. The total acreage in the Alternative 2 wind-DFAs was approximately 500,000 acres, as compared to the 1.3 million acres in CalWEA’s proposed DFAs, with about 24% of the Alternative 2 DFA acreage meeting the criteria that CalWEA used to identify Wind DFAs. 11% of CalWEA’s DFAs is captured by Alternative 2.



Map C. Overlap Between Proposed Wind Development Focus Areas (Wind-DFAs) and DRECP Alternative 2
California Wind Energy Association (CalWEA) - August 2012
DRAFT - Spatial data and maps were created and analyzed under time constraints and are subject to modification.
Source(s): DRECP, 2012; CalWEA, 2012; Sapphos Environmental, 2012; USGS/ESRI/TANA/AND, 2012



If all of the Wind-DFAs from all of the Alternatives are merged and compared to CalWEA's proposed DFAs, 35% of CalWEA's DFAs are captured.

Within these DFA areas, the DRECP analysis should assume that:

- any wind developments will meet any requirements under BGEPA. Proposed projects would be subject to site-specific eagle studies and permitting under a limited, interim permitting process (under the ESA with associated BGEPA clearance). During this interim period, a 3- to 4- year defined research effort, with defined funding sources, would be conducted to support and establish a long-term, programmatic eagle permitting process based on the research results.
- any wind developments within a Special Recreation Management Area will be required to mitigate such impacts to recreation in accordance with current BLM policies.
- proposed wind projects in OHV open areas would require the consent of recognized representatives of OHV groups.

The REAT Agencies should provide specific evidence to support the exclusion of any acreage within these areas. Any biological reserve areas removed from these Wind DFAs should be proposed for permanent protection from all types of development under the terms of the DRECP.

d. *Wind Evaluation Areas*

Equally important to the areas included in the proposed Wind DFAs is the regulatory treatment of wind resource areas outside of the Wind DFAs that are potentially commercially viable subject to further studies illuminating the degree of compatibility of wind energy development in these areas, and/or associated actions by governmental entities.

Map D depicts the cumulative total of these areas, which include:

- the known conflict areas described above (DoD high potential conflict areas, local government land-use zoning restrictions that currently preclude or discourage wind development, existing ACECs and DWMAs, and areas proposed to be set aside under the proposed "California Desert Protection Act of 2011"), and
- areas appearing to host 5-6 m/s wind speeds based on NREL/AWS TruePower maps, but which may later be proven to host higher-quality wind resources based on measurements conducted by wind energy development companies.¹³

¹³ Model-based resource maps are not always accurate – when meteorological equipment is installed to actually measure the wind in particular places, substantial differences are occasionally found (sometimes as much as a full wind resource class or more). Our highest-quality wind resource area includes several

The DoD's proposed HRAIZ area is shown in cross-hatch to indicate the very high hurdle that will face projects proposed in this area, making developments with commercially proven wind technologies generally very unlikely. There may, however, be some limited instances where the DoD may approve mitigated projects, or new technologies may be developed. In these cases, project applications in the evaluation areas should be processed. Nevertheless, it should be assumed that wind projects in the HRAIZ area will have significant development uncertainty; therefore, the DRECP should seek to prioritize wind development in other areas.

As with Wind DFAs:

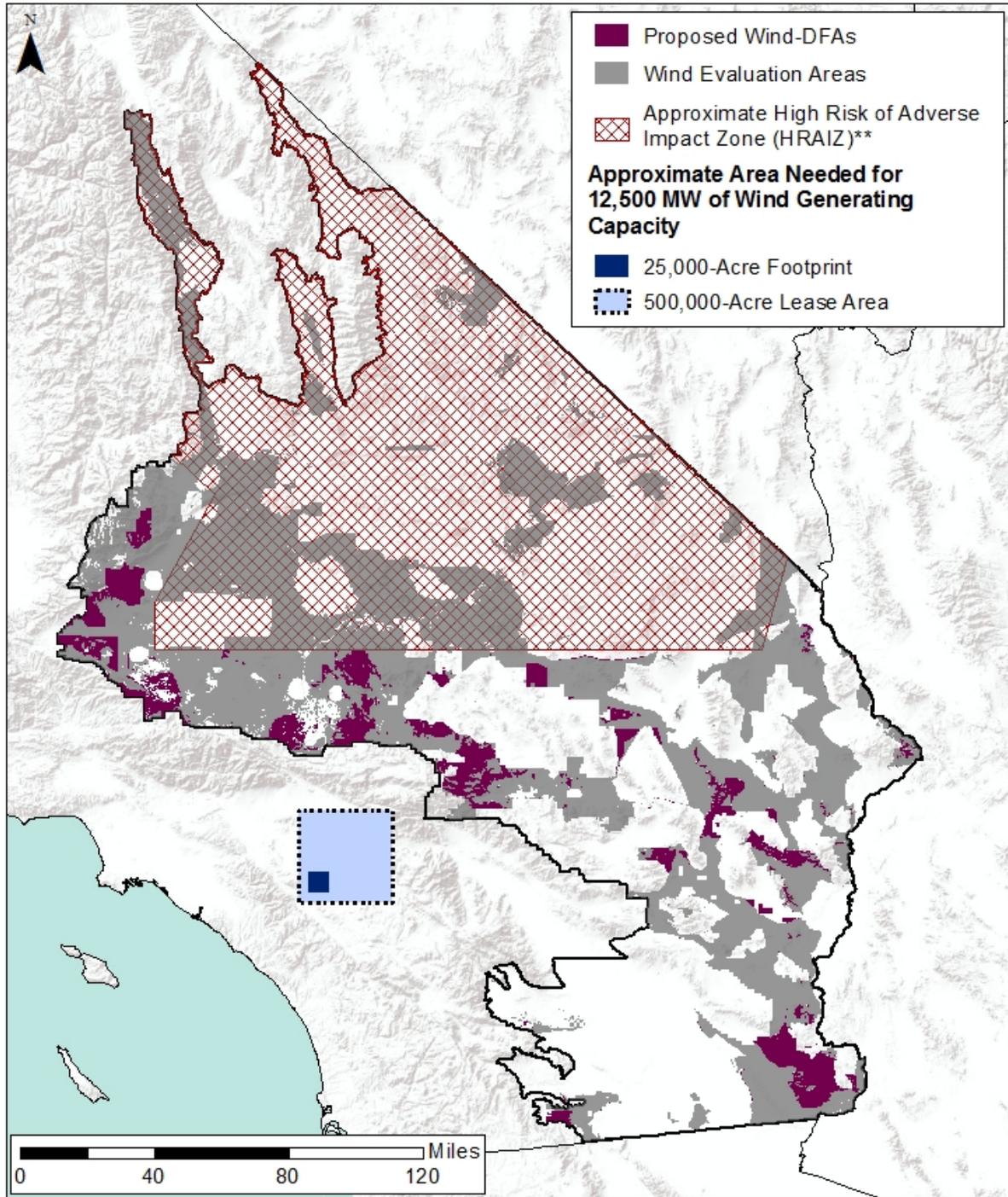
- any wind developments will need to meet any requirements under BGEPA. Proposed projects would be subject to site-specific eagle studies and permitting under a limited, interim permitting process (under the ESA with associated BGEPA clearance) pending a 3- to 4- year defined research effort with defined funding sources. A long-term, programmatic eagle permitting process would be established based on the research results.
- any wind developments within a Special Recreation Management Area will be required to mitigate such impacts to recreation in accordance with current BLM policies.

In addition, development in these areas would be subject to meeting specifically defined criteria pertaining directly to the potential conflict. For example:

- Proposed projects within a military red area would require DoD clearance;
- Projects proposed with ACECs and DWMA's must meet a high standard of review associated with their potential impact on the environmental resources intended to be protected by the ACEC/DWMA. (See discussion below.)
- Proposed projects in conflict with General Plans or Zoning Plans would require an appropriate land use amendment.
- Projects proposed within the proposed CDPA area would move forward only if the CDPA is redefined or fails passage, unless they are in an area specifically designated by the CDPA as a "permanent OHV areas." In this case, if the CDPA becomes law, the proposed project would require the affirmative concurrence of a majority of the recognized organized groups that utilize the permanent OHV area.

If the conflict(s) can be resolved, ***the project would be granted the same regulatory treatment as a project in a DFA.*** That is, processing of those projects will be streamlined (subject to evaluation of compliance with applicable criteria and limited NEPA review) and receive appropriate regulatory assurances.

active project development areas that were shown on the NREL maps to be 5-6 m/s areas, but have been proven through on-site measurements to host higher-quality resources. Further, turbine manufacturers are working to optimize turbines to capture lower average wind speeds. This technology may enable 5-6 m/s winds to be commercially viable within the later years of the DRECP timeframe as higher wind-speed sites become developed, or if they cannot be accessed due to various constraints.



Map D. CalWEA Proposed Wind-DFAs, Wind Evaluation Areas, and an Approximate Area Needed for 12,500 MW of Wind Generating Capacity
 California Wind Energy Association (CalWEA) - August 2012
DRAFT - Spatial data and maps were created and analyzed under time constraints and are subject to modification.



Source(s): DRECP, 2012; CalWEA, 2012; Sapphos Environmental, 2012; USGS/ESRI/TANA/AND, 2012
 **NOTE: CalWEA's approximation of HRAIZ based on informal revelation of HRAIZ by the Department of Defense

The REAT Agencies should provide specific evidence to support the exclusion of any acreage within these areas. Any biological reserve areas removed from these areas should be slated for permanent protection from all types of development under the terms of the DRECP.

With regard to ACECs and DWMAAs:

- There is currently a lack of scientific studies and literature on the compatibility of wind projects and the species of concern in each particular area – which may be a plant, the desert tortoise, Mojave ground squirrel or other species. However, as discussed in section II.D, it is reasonable to presume compatibility of wind and many terrestrial species and biological goals and objectives.
- The DRECP should, therefore, include a research plan for determining the compatibility of wind in ACEC and DWMA areas. This plan might include, for example, the goal of conducting a baseline survey of desert tortoise, jointly funded by industry and the DRECP, prior to the construction of a wind project in a DWMA area, followed by a post-construction study.
- At a minimum, a project proponent should be encouraged, under the DRECP, to instigate and fund independent scientific research on the species of concern, taking the risk that the results may not be favorable to the placement of wind energy generation facilities. Wind energy proponents should be advised of the likelihood of success; however BLM or other regulation entity would take no responsibility or liability for the investment made by a project proponent in such pursuits.
- The results of these studies would be used to determine the circumstances under which wind projects would be deemed broadly compatible with the species addressed. Where compatibility is determined, the ACEC/DWMA areas addressing that species should be considered for wind-DFA status. Where incompatibility is found, the area can be removed from the DRECP “Wind Evaluation Areas” and be closed to wind development.

IV. CONCLUSION

For the foregoing reasons, CalWEA urges the REAT Agency Team to immediately convene additional working sessions to discuss and remedy the issues identified.

Sincerely,



Nancy Rader
Executive Director

Attachments:

APPENDIX A – CalWEA July 26, 2012, Presentation to DRECP Stakeholders Meeting

APPENDIX B – Response to USFWS July 2012 Presentation to the DRECP Shareholders Meeting

CalWEA High Priority Wind Resource Areas and Lack of Alignment with DRECP Alternatives

Ashley Richmond
Director of Siting Policy
and

Clark Morrison
CalWEA Siting Counsel

DRECP Stakeholder's Meeting
July 25-26, 2012





Goals and Objectives

- ✦ Evaluate and quantify effects of DoD's High Risk of Adverse Impact Zone (HRAIZ) on the potential for wind development within DRECP
- ✦ Define CalWEA's new High Priority Wind Resource Area (HPWRA)
- ✦ Preliminary comparison of Alternatives to HPWRA and its implications
- ✦ Thoughts on process and next steps

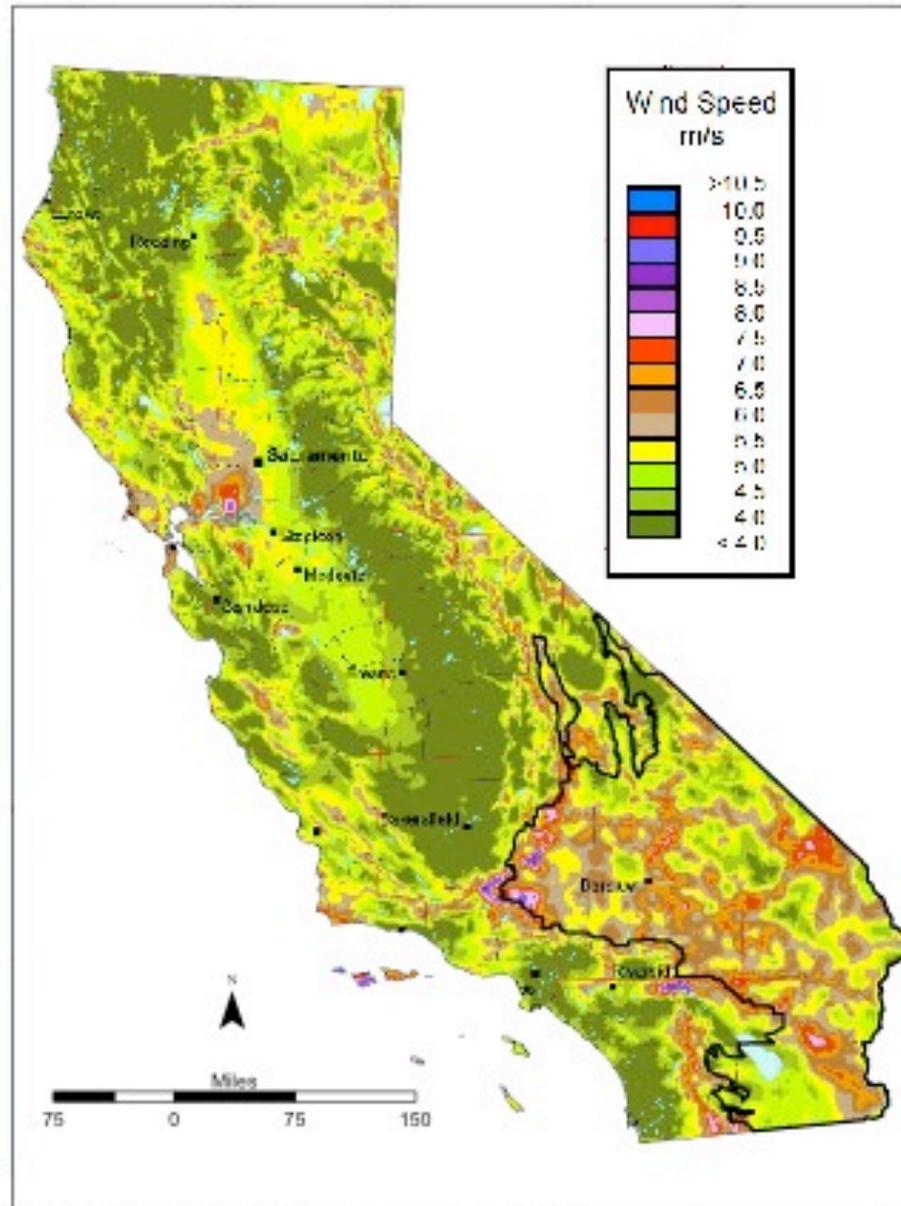


DRECP Alternatives

- ✦ Alternatives overlap only 3% – 16% of High Priority Wind Resource Areas
- ✦ More Development Focus Areas are needed
 - Allow for competition among developers and technologies
 - Enable renewable energy goals to be met at a publicly palatable cost
 - Promote achievement of State's clean energy goals



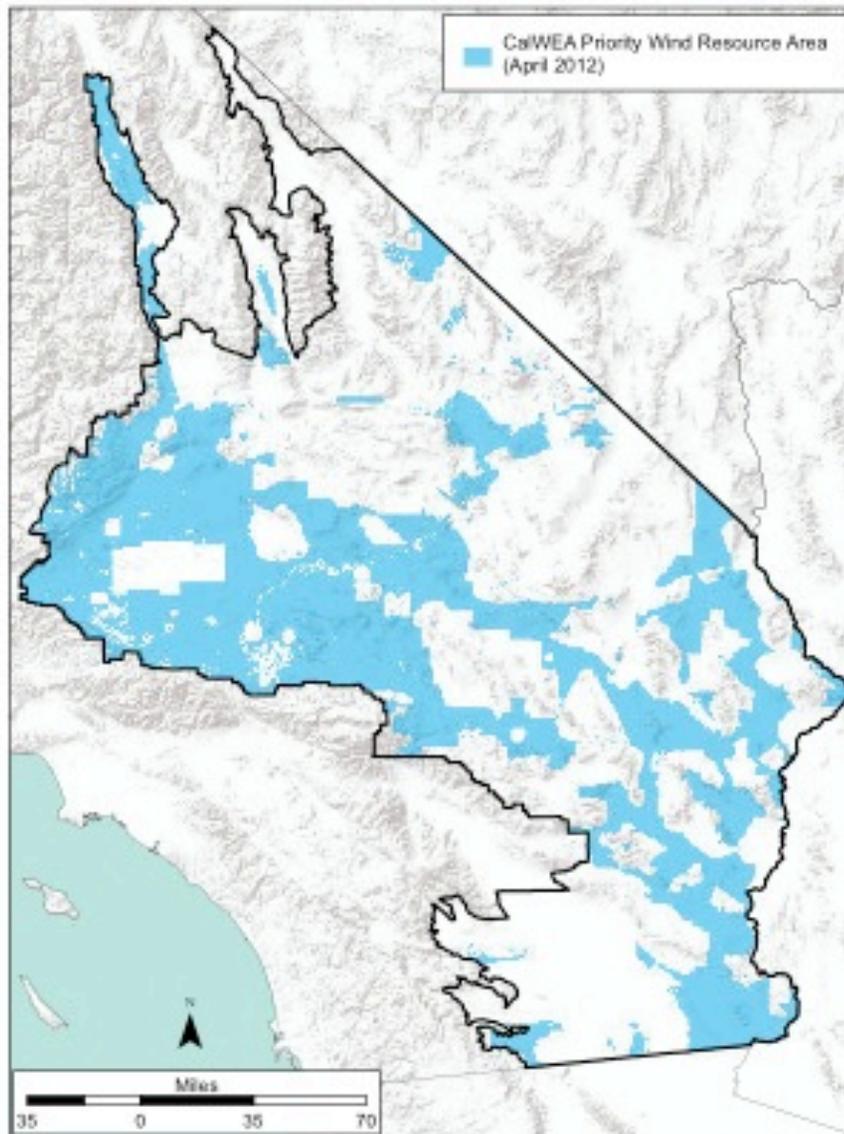
DRECP Wind Resources



Source(s): NREL, 2010; DRECP 2012



CalWEA Priority Wind Resource Area – PWRA, April 2012

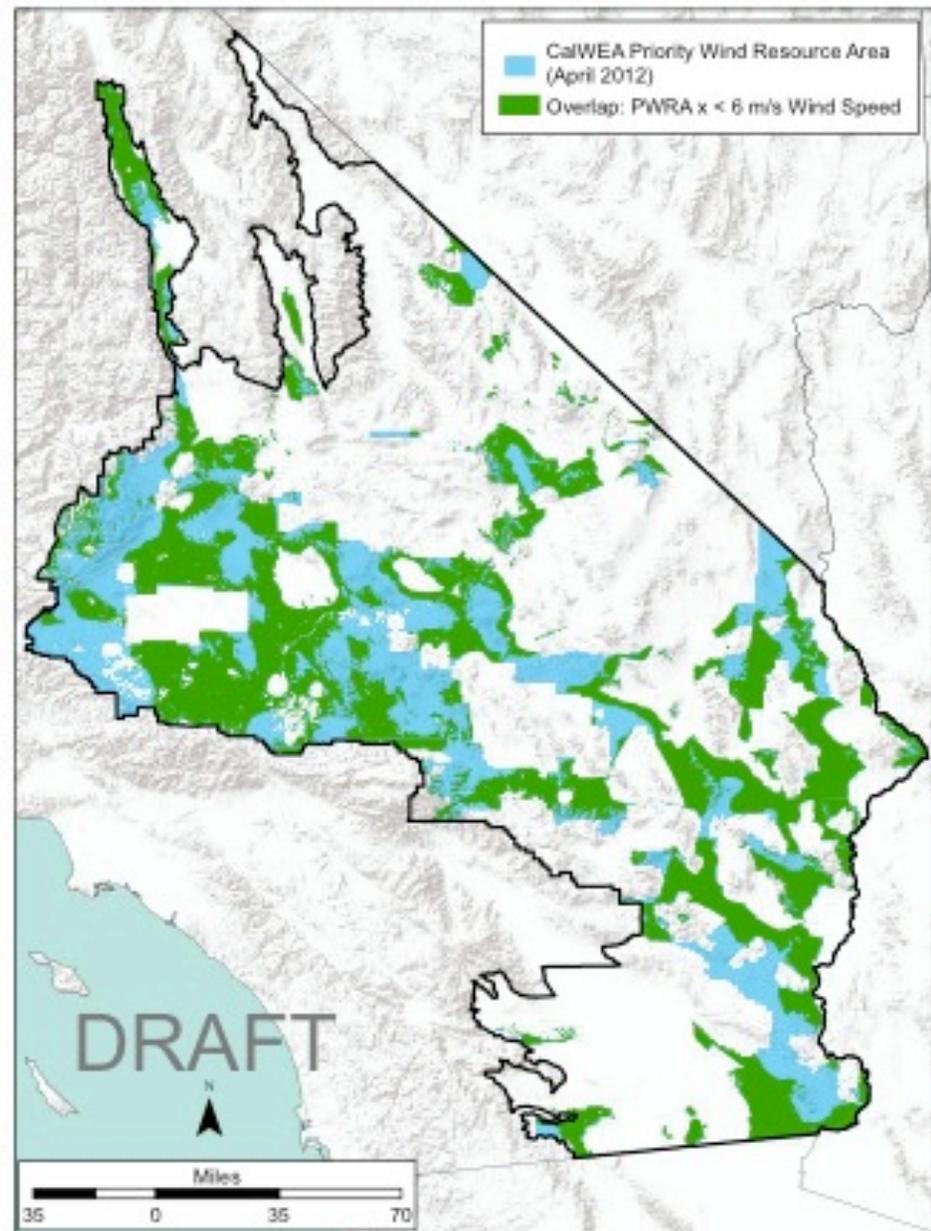


Source(s): DRECP, 2012; Sappho Environmental, 2012; CalWEA, 2012; USGS/ESR/TANA/AND, 2012



Overlap: PWRA x < 6 m/s

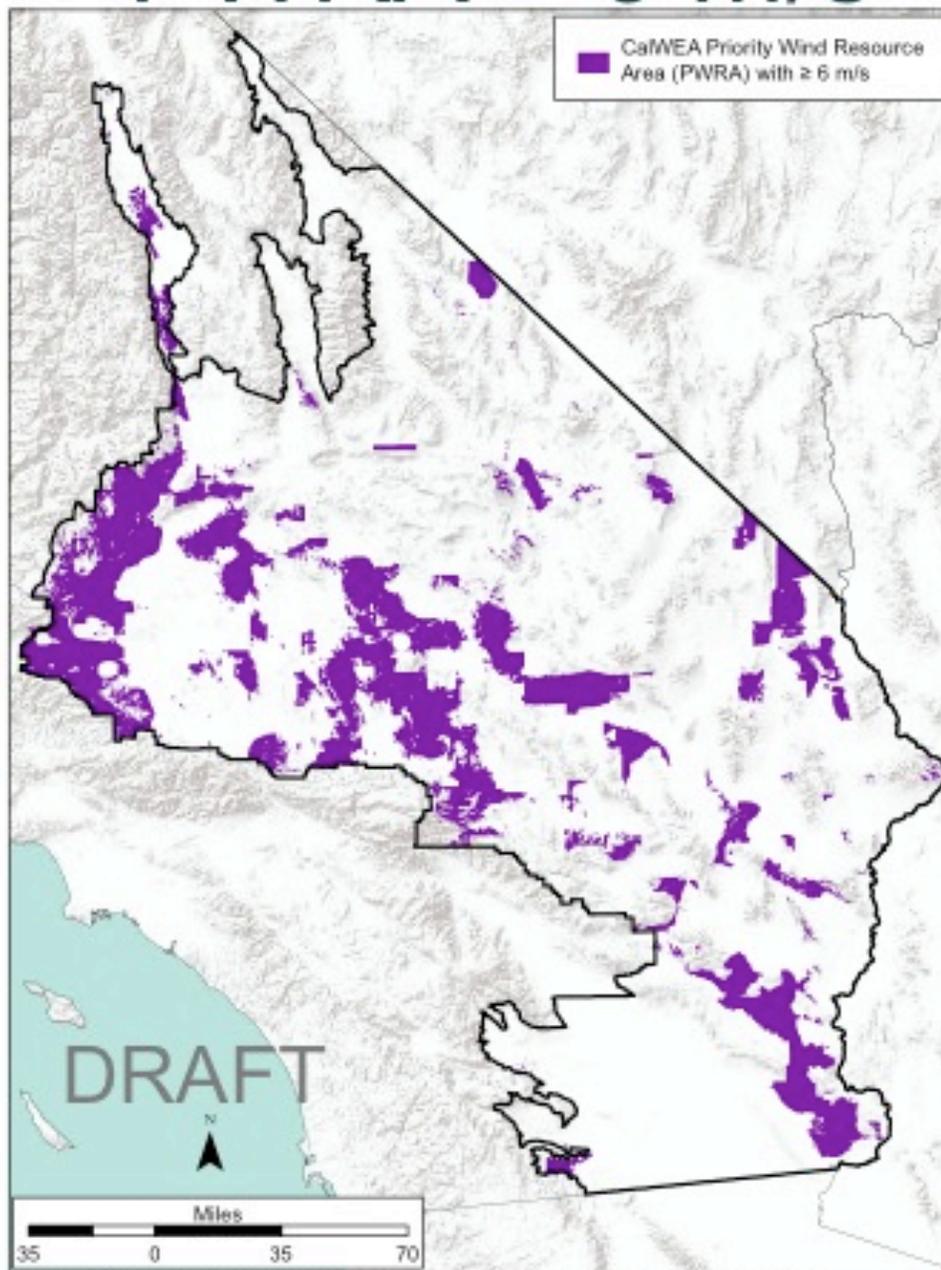
- ✦ Currently, wind speeds below 6.5 m/s are not commercially viable
- ✦ Wind speeds less than 6 m/s are not anticipated to be viable in the near-term



Source(s): DRECP, 2012; Sapphos Environmental, 2012; CalWEA, 2012; AWS True Power 2010.



PWRA ≥ 6 m/s



Approximate HRAIZ in DRECP



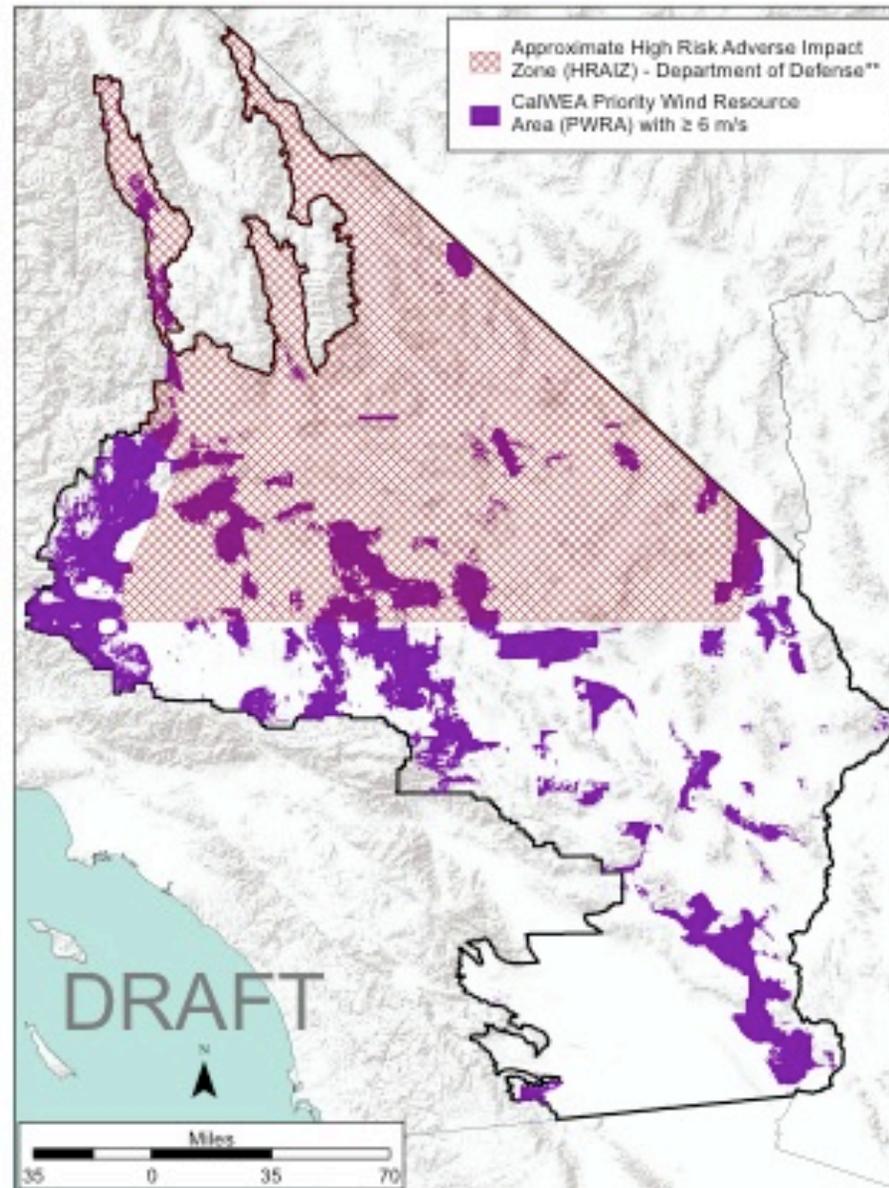
- ✦ DRECP: 22.6 million acres
- ✦ HRAIZ within DRECP: ~ 10.5 million acres
- ✦ **~ 46% of DRECP land area excluded for wind due to HRAIZ military area**



Source(s): DRECP, 2012; Sapphos Environmental, 2012; CalWEA, 2012; USGS/ESR/TAM/AND, 2012
**NOTE: CalWEA's approximation of HRAIZ based on informal revelation of HRAIZ by the Department of Defense



Overlap: HRAIZ x PWRA ≥ 6 m/s



Source(s): DRECP, 2012; Sapphos Environmental, 2012; CalWEA, 2012; USGS/ESRVTANA/AND, 2012
**NOTE: CalWEA's approximation of HRAIZ based on informal revelation of HRAIZ by the Department of Defense



High Priority Wind Resource Area

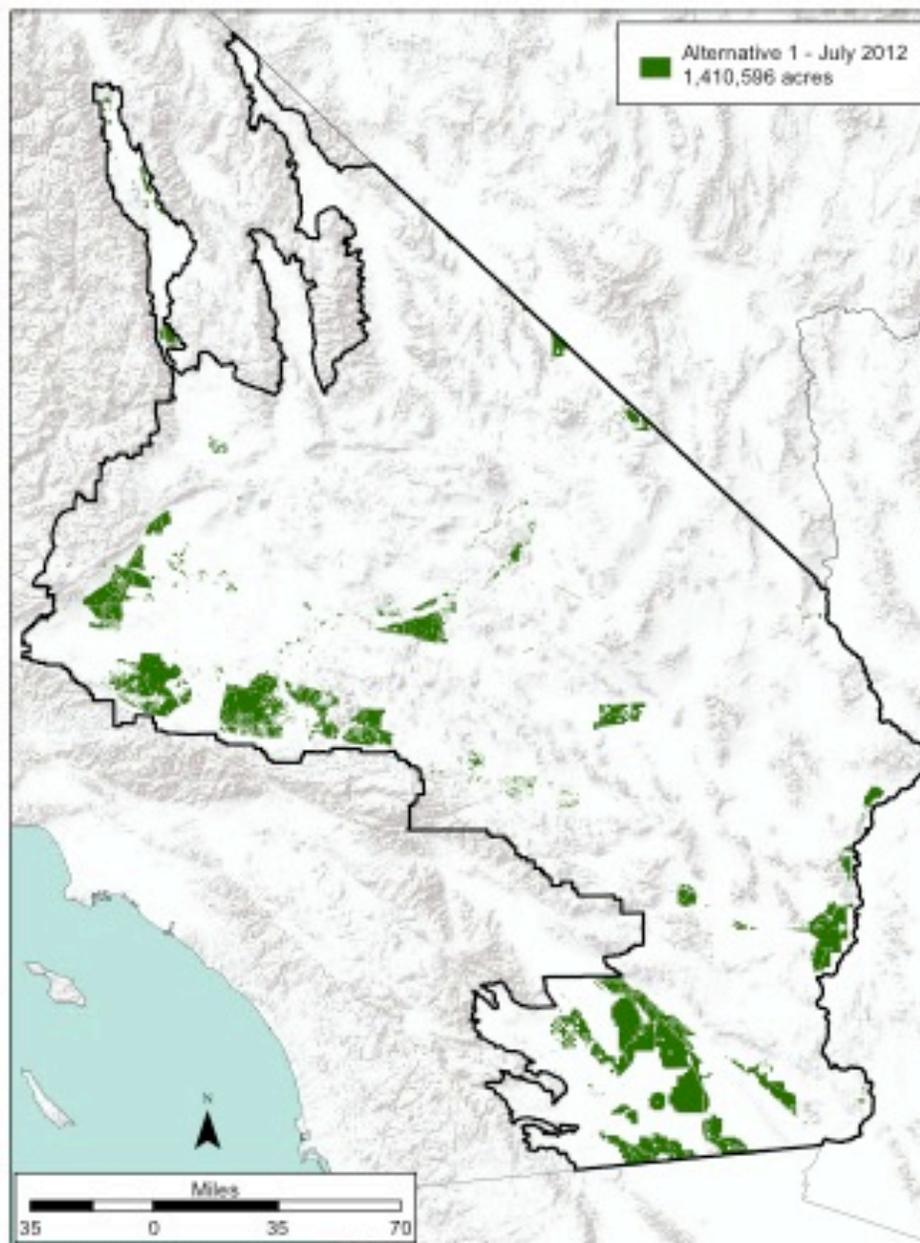
- ✦ PWRA (April 2012):
8.6 million acres
- ✦ ... ≥ 6 m/s: 3.6 million
acres
- ✦ ...less PWRA ≥ 6 m/s
in HRAIZ: ~ 1.1
million acres
- ✦ **HPWRA: ~ 2.6
million acres**



Source(s): DRECP, 2012; Sapphos Environmental, 2012; CalWEA, 2012; USGS/ESR/TANAJAND, 2012
**NOTE: CalWEA's approximation of HRAIZ based on informal revelation of HRAIZ by the Department of Defense

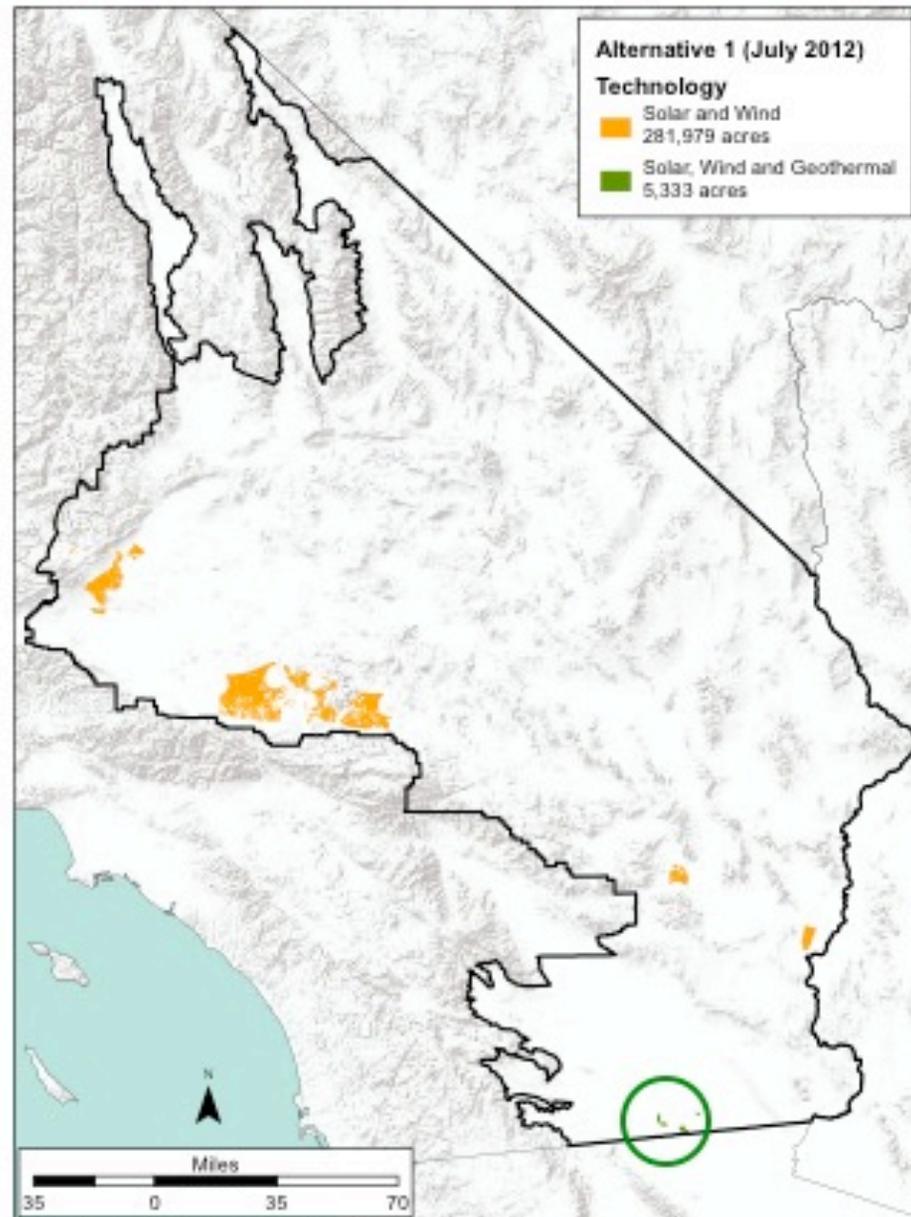


DRECP Alternative 1





Alternative 1 by technology

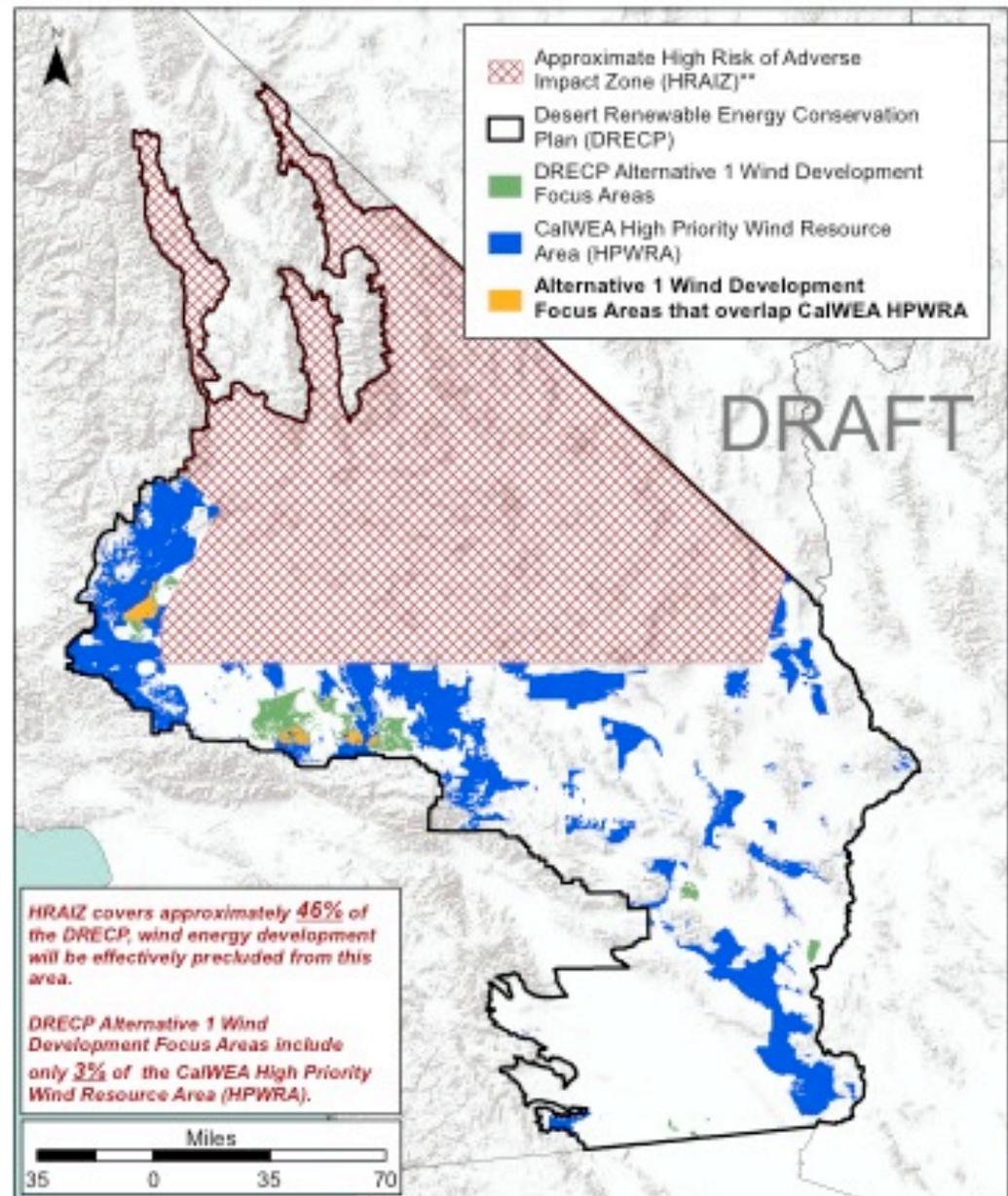


Source(s): DRECP, 2012; USGS/ESR/VTANA/AND, 2012

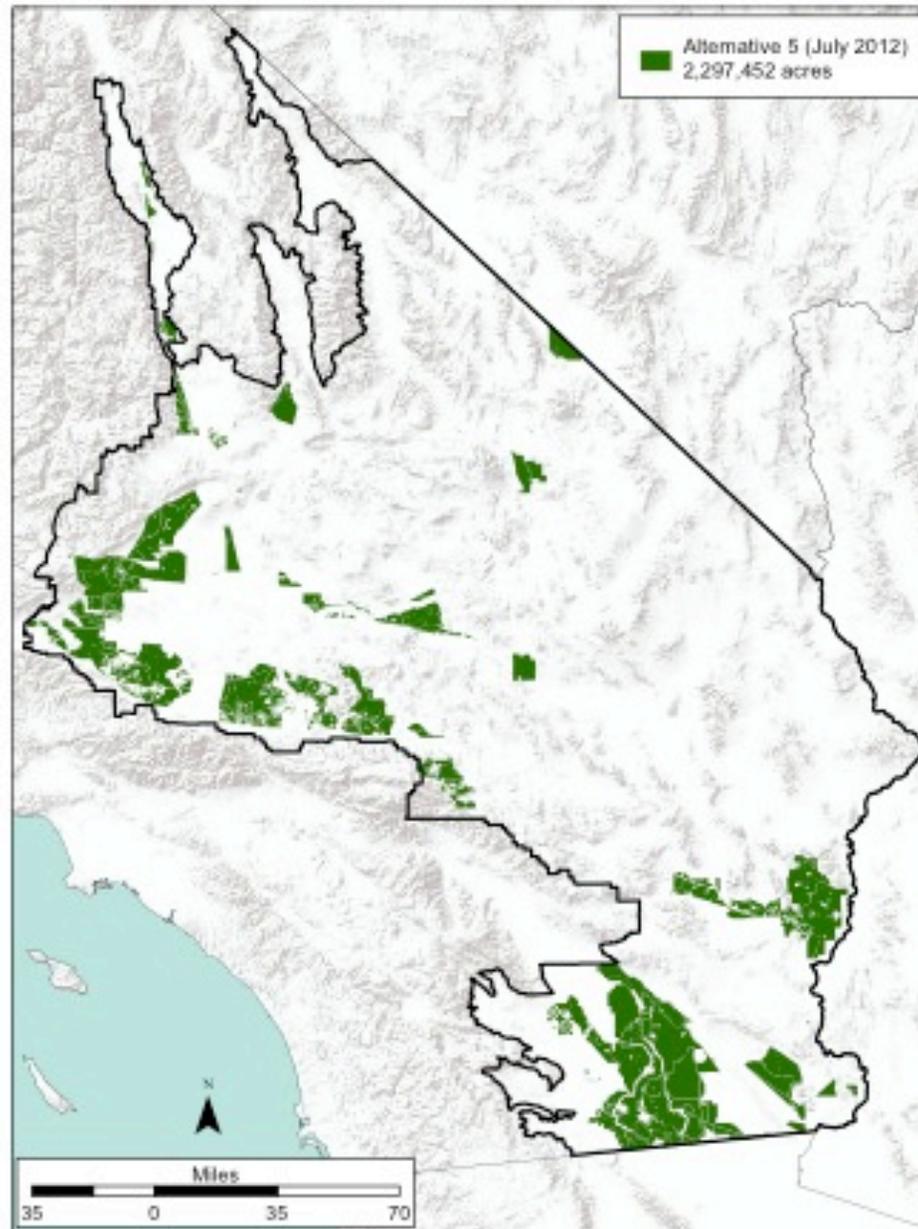


Overlap: Alternative 1 x HPWRA

- ✦ HRAIZ covers approximately 46% of the DRECP, wind energy development effectively precluded from this area
- ✦ Alternative 1 Wind DFAs include only 3% of HPWRA

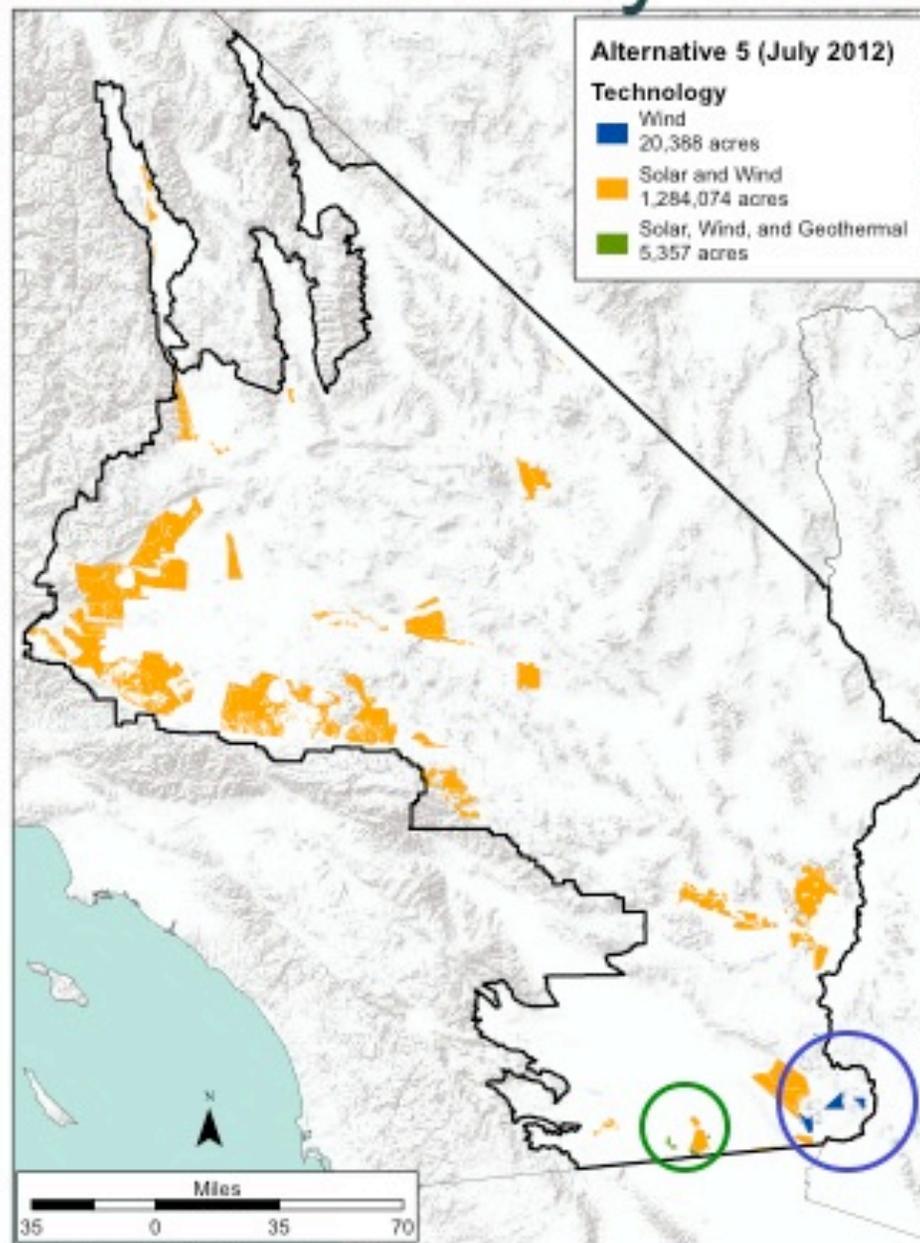


DRECP Alternative 5





Alternative 5 by technology

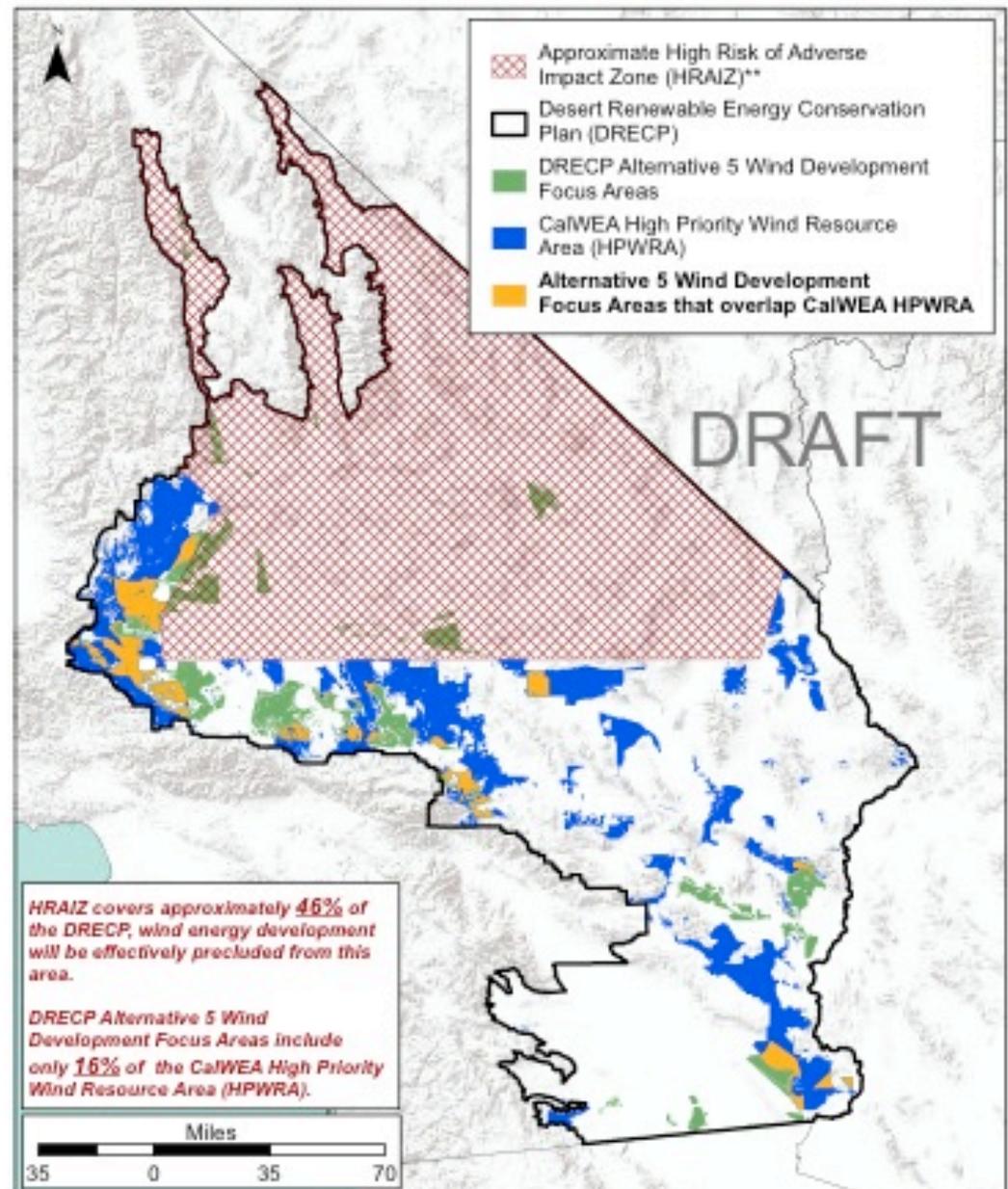


Sources: DRECP, 2012; USGS/ESRV/TAM/WIND, 2012



Overlap: Alternative 5 x HPWRA

- ✦ HRAIZ covers approximately 46% of the DRECP, wind energy development effectively precluded from this area
- ✦ Alternative 5 Wind DFAs include only **16%** of HPWRA





Thoughts on Process and Next Steps

- ✦ Request continuation of stakeholder process
 - Need more transparency and dialogue
 - Maps hold little meaning by themselves
 - Need to see specific layers used: eagle, etc.
 - Need discussion of Rule Sets and Mitigation Requirements



Thoughts on Process and Next Steps

- ✦ (Re-)Request a Wind Working Group to address wind compatibility issues post-haste
 - Agency, consultant, and stakeholder participation



Wind Working Group

- ✦ Proposed goals of Working Group
 - Seek to expand Wind DFAs
 - Identify “Wind Study Areas” for major land-use conflict issues
 - Eagle, SRMA, Military, ACEC, etc
 - Identify issues that must be addressed in order to move area into DFA classification



Wind Working Group

- ✦ Proposed goals of working group (cont.)
 - Develop strong narrative in DEIS/R describing purpose and approach of wind study areas
 - Describe tasks to be achieved during 3-year period



THANK YOU



CALWEA APPENDIX B

Questions Regarding the USFWS Presentation to the July 2012 DRECP Shareholders Meeting

There are several terms and concepts that need further clarification to better understand the approach that USFWS is taking regarding take permitting for golden eagles within the DRECP. There are also some specific measures that we have questions as to how they were derived and/or how they will be implemented.

TERMS

- Sustainable local area eagle population
 - If this was estimated using the Draft Eagle Conservation Guidance (140-mile radius around a nest site) what data from the local region were used?
 - What is the population estimate USFWS is using and how was it derived?
 - Does it encompass any golden eagle that uses the DRECP area at any time during the year?
- Allowable take level – 5% of the local area eagle population.
 - Is this level DRECP-wide per year?
 - Will it be a static number for the life of the plan, or will it fluctuate depending on the most recent population estimates? If it fluctuates, how often will it be re-evaluated?
 - This level is stated to be “consistent with USFWS policy.” What specific policies does this refer to? Is this derived from policy specific to California golden eagles?
 - Is this level based on the best available science? If so, what is the scientific basis? Is it based on the estimated sustainable take for bald eagles published in the EA for the final rule in 2009?
 - This take level is stated to be “very low” because “there are not very many eagles in the Mojave desert compared to other areas”. What other regions were used in this comparison?
- Breeding territory
 - In several instances thresholds or measures were stated as needed to prevent the loss of a breeding territory. How is breeding territory defined, and how does the loss of one territory translate to take of an eagle, especially given that territories are somewhat fluid over time?
 - Has any consideration been given to the existence, in many golden eagle territories, of supernumerary nests? That is, what evidence is there that disturbance causing eagles to avoid one nest location causes them to abandon the territory rather than use one of their supernumerary nests?
- Active nest
 - How will this be defined?
 - Nest activity has a temporal component that is important in understanding whether human actions near the nest will disturb breeding.

- Habitat loss – this was defined as primarily foraging habitat, specifically relevant to nesting eagles.
 - How is foraging habitat defined?
 - What evidence suggests that 20% habitat loss from 1-4 miles from a nest or 5% from 4-10 miles from a nest leads to the loss of a territory?
 - The nearest-neighbor distance within the DRECP appears to be much less than 10 miles based on the known nest location map provided. How might that value affect these estimates?
 - What kind of regulatory implications are there for eagle habitat loss? This isn't addressed in BGEPA (mortality or disturbance only, no habitat loss mentioned).

CONCEPTS/MEASURES

- Disturbance buffer - to address risk of disturbance
 - What is meant by “human uses”?
 - Will this apply to existing uses?
 - What data were used to derive the distances provided (0.5 – 1.0 mile radius)?
- Construction buffer – to address risk of disturbance
 - If this distance is from “active” nests, at what time of year will the buffer be defined? Immediately prior to construction? What data were used to derive the distances provided (1.0 mile radius)?
 - For what time period will this buffer distance be required? Just during the breeding season?
- Project nest buffer for wind and solar projects- According to USFWS this was developed based on the distance within which 80% of movements of a nesting pair are contained (4 mile radius) to address mortality risk.
 - “Several studies” were cited as supporting this value, which studies were those? How comparable are those studies to the DRECP?
- Figure with 4-mile buffers
 - What was the dataset used to develop this map and how current are the nest locations?
 - How many of these nest locations are active in a given year?
 - Of the areas without nest locations, have these areas been surveyed for nests?
- Nesting Habitat Suitability Model
 - Is this the model used in the DRECP habitat suitability layer?
- No-wind buffer 4-10 miles from nest
 - What evidence is there to support a significant collision risk of wind turbines 4-10 miles from an eagle nest?
 - Why are mortality avoidance measures tied to nest locations?
 - Is this buffer specific to active nests or recent occupancy? If recently occupied, what does USFWS consider “recent”?
- Eagle Conservation Areas

- What is the basis of nest locations used in the analysis? If derived mostly from the efforts of wind and solar energy companies to adhere to ECP guidance, the result is a biased sample that is biased toward areas that have been explored for renewable energy projects. How will you estimate nest densities or even nest occurrence in other areas that have not been explored by wind energy companies?
- No development within 4 miles of a nest
 - Is this regardless of activity or potential mortality or disturbance risk?
- Maximum of 5% habitat loss from 4-10 miles from a nest
 - What science supports this threshold as causing breeding territory abandonment?
 - Is this limited to active nests?
- Mitigation fee based on estimated take
 - The mitigation fee appears to be proposed to be paid upfront for a given project's estimated take. Would this be the take for the given year, or for the life of the plan?
 - If take occurs less than the estimated level, would a refund be issued?
 - If several projects estimate take that cumulatively exceeds the take level for the DFA, how would that be addressed?
- Monitoring fees
 - Would projects be required to pay for DRECP-wide population monitoring in addition to project-specific monitoring?
 - Would these fees be assessed based on estimated take levels or another factor?
 - What type of monitoring would be performed, and would projects have any input as to what data are collected?
- Project-level measures
 - How long would mortality monitoring be required?
 - If project-specific compensatory mitigation is required, how does this reconcile with the mitigation fees already paid upfront?